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62.67  
NUMBER 1

ESTABLISHED 1853

# THE STORRS AND HARRISON CO.



FRUIT AND ORNAMENTAL TREES.

SHRUBS, ROSES AND BULBS

PAINESVILLE NURSERIES

PAINESVILLE, OHIO



### Suitable Distances for Planting

Apples, Standard . . . . .	30 to 40	feet	Grapes . . . . .	8 to 10	feet
“ Dwarf . . . . .	8 to 10	“	Currants . . . . .	3 to 4	“
Pears, Standard . . . . .	18 to 20	“	Gooseberries . . . . .	3 to 4	“
“ Dwarf . . . . .	10	“	Raspberries, Red . . . . .	3 to 4	“
Peaches . . . . .	16 to 18	“	“ Black . . . . .	4 to 5	“
Nectarines and Apricots . . . . .	16 to 18	“	Blackberries . . . . .	5 to 7	“
Cherries, Sweet . . . . .	18 to 20	“	Strawberries, rows . . . . .	1 by 3½	“
“ Sour . . . . .	15 to 18	“	“ in beds . . . . .	1½ by 1½	“
Plums . . . . .	16 to 20	“	Asparagus, in beds . . . . .	1 by 1½	“
Quinces . . . . .	10 to 12	“	“ in field . . . . .	1 by 3	“

### Number of Trees or Plants on an Acre

2 feet each way . . . . .	10,890	15 feet each way . . . . .	194
3 “ “ “ . . . . .	4,840	18 “ “ “ . . . . .	135
4 “ “ “ . . . . .	2,723	20 “ “ “ . . . . .	110
5 “ “ “ . . . . .	1,742	25 “ “ “ . . . . .	70
6 “ “ “ . . . . .	1,210	30 “ “ “ . . . . .	48
8 “ “ “ . . . . .	680	33 “ “ “ . . . . .	40
10 “ “ “ . . . . .	430	40 “ “ “ . . . . .	28
12 “ “ “ . . . . .	302		

To ascertain the number of plants required to the acre at any given distance, divide the number of square feet (43,560) in an acre by the number of square feet you desire to devote to each plant. For instance, in strawberries planted 1½ by 3 feet, each hill will occupy 4½ square feet, making 9,680 plants to the acre.

### GUARANTEE OF GENUINENESS

While we exercise the greatest diligence and care to have all our trees, etc., true to label, and hold ourselves in readiness on proper proof to replace all trees, etc., that may prove untrue to label free of charge, or refund the amount paid, it is mutually understood and agreed to between the purchaser and ourselves, that our guarantee of genuineness shall in no case make us liable for any sum greater than that originally received for said trees, etc., that prove untrue.



PLEASE TAKE THIS OUT AND USE IN ORDERING. ADDRESS:

# THE STORRS & HARRISON COMPANY

PAINESVILLE, LAKE COUNTY, OHIO

All remittances by Post Office or Express Order, Bank Draft and Registered Letter are at our risk. Do not send Money in ordinary letters without registering; it is not safe; we will not be responsible for it, and, if lost, you must not expect us to make it up.

Name .....  
(Very Plainly)

Post Office ..... P. O. Box .....

County ..... State .....

Street ..... Forward by .....

Express Office ..... Freight Station .....

Express Co. .... Railroad .....

Amount enclosed, <sup>P. O.</sup> or EXPRESS Order, \$ .....

" " - - - Draft, \$ .....

" " - - - Cash, \$ .....

" " Postage Stamps, \$ .....

Total, \$ .....

Date ..... 190 .....

VERY IMPORTANT.—No difference how often you have written us, always give your full Address and write your Name, Post Office, County and State very plainly.

QUANTITY

NAMES OF ARTICLES WANTED

PRICE

\$

Cts.



*Fiftieth Anniversary Catalogue of*  
**FRUIT & ORNAMENTAL  
TREES**

SHRUBS, ROSES, PERENNIAL PLANTS, ETC.



ESTABLISHED 1853

*GROWN AND FOR SALE AT THE*  
**PAINESVILLE NURSERIES**  
**THE STORRS & HARRISON CO.**  
**PAINESVILLE, OHIO**

# THE PAINESVILLE NURSERIES

*Their Unrivalled Location  
Superior Stock, Methods and Business Rules*



FIFTY YEARS AGO, the founder of Painesville Nurseries made the first small plantings for a local trade here in northern Ohio, along the shore of Lake Erie. To our wonderfully favorable location and great variety of soils the steady growth of the nurseries is doubtless largely due. They now include over 1,000 acres, and extend for over two miles along the shore of the lake.

Proximity to such a large body of water protects our nursery stock from early and late frosts and severe climatic changes. No section of the United States is better adapted to the production of healthy, hardy, well-rooted, thoroughly ripened nursery stock.

So large an acreage gives space for planting all our fruit and ornamental stock at good distances for the proper development of top and root, so that customers need not lose several years coddling trees and shrubs into growth, or pruning them into well-furnished heads. It also permits the necessary careful lifting of specimen trees and shrubs without interfering with others in the rows. Successful growth after transplanting depends greatly upon securing the whole root system of the stock purchased.

The soil-variety of our nurseries, ranging from gravelly loam and deep muck to the heaviest clay, enables us to grow a large assortment of fruit and ornamental stock, and yet to plant each kind on soil especially adapted to its best development. We give more especial attention to the development of fibrous, healthy roots that will transplant successfully in different soils and climates than to luxuriant, showy tops.

We are located on main lines of Lake Shore and Nickel Plate, branch line of B. & O. R. R.; have American, National, United States and local electric Express Companies, giving us direct connections and prompt service for all shipments.

## *Our Superior Facilities*

Careful digging, handling and packing are necessary in order to insure success with even the best-grown stock. Quantities of it are ruined every season through ignorance of the best methods, or lack of the proper facilities for handling it. Here our fifty years of experience as nurserymen count as a great advantage to all who deal with us. All our departments are carefully systematized and under the personal supervision of experienced managers or members of the firm.

Our cellars and packing-houses are the largest and best-equipped in the trade. These enable us to store great quantities of stock, with absolute safety from the cold and the climatic changes of winter, in such a way as to prevent early spring growth and to facilitate handling and shipping to different localities at the right time for planting.

Forty-five large greenhouses, of the best modern construction, supplemented with several acres under sashes, are devoted to the propagation of such hardy plants, roses, shrubs, vines and fruits as can best be started under glass. Here, too, is grown a full line of tender greenhouse and bedding plants, for which a separate catalogue is issued.

The largest assortment of stock grown by one firm is, therefore, ready to be shipped direct to purchasers from our nurseries. We can supply almost anything of value that you may desire in the planting line, from seedlings to selected specimens, in large or small quantities.

Our nurseries are regularly inspected by the proper authorities, and a certificate of inspection accompanies each shipment sent out by us. We are well supplied with fumigating houses, and can comply with the laws of different states in this respect. We always fumigate stock when requested to do so.

## *Visitors are Always Welcome*

Direct dealing with customers, as noted elsewhere, is a specialty with us. Thus we are responsible only for stock of our own growing, handled but once, graded to the highest standard, and packed to perfection. When purchasers can visit our nurseries to personally inspect and select the stock desired, we are glad to welcome them and to show them over our grounds. The best time to make such visits is in the growing season.

### *To Correspondents*

Our specialty is direct dealing with customers. We employ no soliciting agents. A large amount of stock is furnished dealers in trees, plants, etc. If they contract to procure of us the entire amount of their sales, we permit them to represent the stock sold as coming from our nurseries. Many of these men have been handling our stock for years and are doing a perfectly honest, legitimate business. If doubtful as to the reliability of any one trying to sell you stock, write us, giving his name, before signing any orders. Sometimes dealers take advantage of our reputation in effecting sales, yet procure their stock where it can be picked up cheapest, and we know nothing of the transaction until their customers write us, complaining of poor packing, stock poor, or not true to name, etc.

Orders should always be placed early before assortments are broken. It is often impossible to procure varieties wanted if orders are delayed until time for planting. When spring planting is preferred, we will book orders in fall and set stock aside in cellar ready for shipment at any desired date.

In ordering, write the name, number and size of each variety plainly, so as to avoid errors. In ordering fruit trees, also state whether standard or dwarf trees are wanted. In filling orders, we reserve the right, in case we are out of a variety ordered, to substitute another of equal merit, when it can be done, always labeling with correct name, unless customers write "no substitution" in the order.

To insure attention, all correspondence, inquiries, etc., should be written on a separate sheet from order, with name and address on both.

All goods will be delivered at railway or express office free of drayage.

We take receipts for all goods shipped, after which purchasers must look to forwarders for all damage caused by delay or miscarriage.

Plain directions about marking and the mode of conveyance are of the utmost importance. When full instructions are not given, we use our best judgment, but in so doing assume no responsibility.

**Mistakes.** We make them occasionally, and hold ourselves in readiness promptly to rectify them, so far as possible. Stock should be carefully examined and counted, on receipt; if not right, write us at once, good-naturedly if you can, but write anyhow, stating exactly what the trouble is. As it is beyond our power to control the seasons or treatment of stock after receipt, we cannot pay attention to complaints unless promptly made.

**Read carefully our guarantee of genuineness on 2d page of cover.**

Small trees, vines, etc., can be safely forwarded by mail to any part of the United States.

All orders from unknown correspondents must be accompanied by remittance for amount of bill or suitable reference.

Remember our firm and nursery names, "The Storrs & Harrison Co.," "Painesville Nurseries." We receive many complaints about goods sold as coming from "Lake Co. Nurseries," "Great Northern Nurseries," etc., Painesville, Ohio. There are no such establishments.

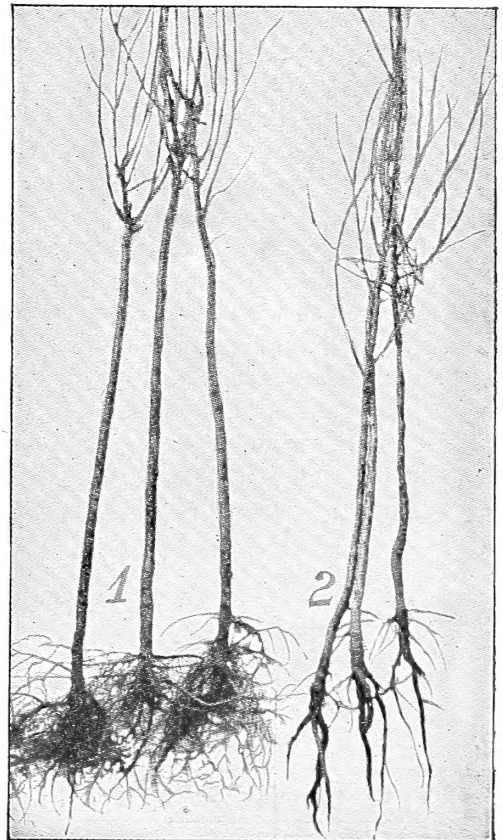
### *To Dealers*

All dealers are hereby warned against using our catalogue in effecting their sales, unless they have a contract with us to supply them trees, etc., as we cannot allow salesmen to use our catalogue or represent their trees as coming from our establishment unless there is a contract existing between us.

### *Suggestions to Planters*

Success depends in a large measure on the treatment given to stock after it is received by the planter. Thousands of well-grown healthy specimens, delivered in first-class condition, are annually lost through neglect and bad treatment.

Avoid all unnecessary exposure to the air. The natural place for the roots of trees is in the ground; as soon as received they should be heeled in, so that mellow earth will come in contact with all the roots. When planting, take out but few at a time. An hour's exposure to hot sun or drying wind is sure death to many trees. More particularly is this the case with evergreens; when once dried, no amount of soaking can dilate and restore them to their normal condition.



Showing the difference between well-rooted trees such as we supply, and poorly rooted trees that are too often sent out by the ordinary nurseryman.

It may be taken as an invariable rule that good fruit cannot be raised upon a soil which is wet or not well drained. It should be rich enough and in sufficient tilth to produce a good crop of corn.

Cut off the ends of all bruised or broken roots with a sharp knife, as a clean cut will heal much sooner than a bruise. If it be a standard tree for the orchard, trim it up to 4 or 5 branches suitable to form the top, and cut each of the side branches back to a bud, 4 or 5 inches from the body of the tree, leaving the leader, or central shoot, from 8 to 12 inches long. When there are no side branches suitable for this purpose, the tree should be divested of all its branches and headed back to a proper height to form the top. If the tree is to be trained in dwarf or pyramidal form, the necessary pruning should be done by cutting back the last year's growth in such a way as to give the tree the shape desired.

**Do not plant too many varieties.** To plant only a few kinds known to be desirable in your locality and market will prove a much better paying investment, planting other kinds only for testing.

In properly prepared ground, the holes need not be dug much larger than necessary to receive the roots in their original position, but it is always best to dig some distance below the roots and refill with surface soil. For trees planted in sod ground the hole should be dug three times the size necessary in well-plowed land. Two persons are required to plant trees properly; while one holds the tree upright, let the other fill rich, mellow earth carefully in among the roots, keeping them in position. When the roots are covered, stamp the soil down as solid as the surrounding surface. If the soil is dry or lumpy, something more powerful than the foot may be required for this purpose. Thousands of trees are lost annually by leaving the ground loose after planting, permitting the air to reach the roots. Plant trees, etc., as deep as they stood in the nursery. Dwarf pears should be planted 3 to 4 inches deeper.

Remove all label wire from trees, that it may not cut the branches; keep a record or map of the names and varieties planted. If the trees are tall or much exposed to winds, tie to a stake in such a manner as to prevent chafing. As soon as planted, 5 or 6 inches of coarse manure or other litter should be spread over the ground about the tree; keep the surface moist.

No grass or grain crops should be grown among fruit trees until they have reached bearing size. The ground between the rows can, with advantage to the trees, be cultivated with potatoes, cabbage, melons, etc., or corn, if not planted within 6 feet of the trees.

If trees are received in a frozen state, place the package unopened in a cellar, away from the frost and heat, until thawed out, then unpack. If partially dried from long exposure, bury entirely in the ground, or place in water from 12 to 24 hours.

### *Wintering Nursery Stock Procured in the Fall*

In sections where the winters are very severe, it is not advisable to set trees and plants in fall; but the practice of procuring them in the fall and planting them in the spring is becoming more and more popular as experience has shown its advantages. In the fall, nurserymen are not hurried with their own planting; the season for planting is comparatively long, and the weather not nearly so changeable.

There is a popular impression that trees dug in the fall and heeled in over winter are not equal to trees fresh dug in the spring. If the heeling is properly done there could be no greater mistake. Young trees, if left standing in the nursery rows, are fuller of sap and much more likely to be injured by frost during the winter. If dug in fall the amount of sap is reduced, the wood appears more fully ripened, and, if treated as described below, they come through bright and uninjured and can be planted as soon as the frost is out of the ground. Such early planted trees are more likely to live than late planted ones.

To insure success, select a dry spot where no water will stand during the winter, having no grass near to invite mice. Dig a trench deep enough to admit one layer of roots, and sloping enough to permit the trees to form an angle of not more than 30 degrees with the ground. Having placed one layer of roots in this trench, cover them with mellow earth extending well up to the stems and see that this is firmly packed. Then add another layer of trees overlapping the first, and continue as at first until all are heeled in. As soon as this is done, cover the tops with evergreen boughs or earth.

**In addition** to this No. 1 Catalogue of Fruit and Ornamental Trees, etc., we issue the following, which will be mailed free to all applicants.

**No. 2.** Issued annually about January 1. About 160 pages, describing the leading varieties of Flower and Vegetable Seeds, Roses, Greenhouse and Bedding Plants, Fruit and Ornamental Trees, Shrubs, Vines, etc., with Price List.

**No. 3.** Issued in August. Descriptive of Holland and other Bulbs, Winter-blooming Plants, Trees, Vines, Small Fruits, etc., with Price List.

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### **THE AMERICAN POMOLOGICAL SOCIETY**

is an organization which, since 1848, has done noble work in

improving fruits and in stimulating horticulture. Its biennial sessions are the most important horticultural gatherings held in America. Every one interested in fruits should take membership in this fine old society, the proceedings of which, as sent to all members, are worth in practical suggestions many times the small membership fee. For information communicate with the secretary, Prof. JOHN CRAIG, Ithaca, New York.





# FRUITS

## *For the Orchard and Garden*

**T**HE fruit-growing industry yearly assumes greater importance and yields larger profits to all who conduct it rightly. For most kinds of nursery stock the demand exceeds the supply. The increase of trade in trees and plants for the home fruit supply is especially noticeable, and points toward increased healthfulness and longevity for Americans. With so much interest taken in fruit culture, authoritative books and journals on the subject will naturally be consulted. We, therefore, offer to beginners merely a few helpful suggestions.

Our stocks of all the various fruit trees and plants are in fine condition, well rooted, vigorous and free from disease, grown by the most improved modern methods. A copy of certificate of inspection accompanies each order.

The dates of ripening given to fruits are for average seasons in northern Ohio.

## APPLE TREES

In nearly all well-drained soils Apple trees will thrive. The introduction of new and hardy varieties has greatly extended the area of their profitable cultivation, and new methods of routing insect enemies, as well as fungous diseases, make the orchard crop much surer.

DWARF TREES on Paradise stock can be furnished in a select list of varieties covering the season. They may be planted 5 or 6 feet apart, and will develop into beautiful little bushes, or may be trained as espaliers. In small village gardens many more of the Dwarf Apples should be planted, as they take up little room, bear early, usually the second or third year after planting, and abundant crops thereafter.

Varieties marked with a star (\*) are the Russian, or hardier sorts.

### SUMMER VARIETIES

**\*EARLY COLTON.** An attractive creamy white Apple of uniformly medium size, nearly round, regular; better in many sections than Early Harvest. The tree bears annually and abundantly. August.

**EARLY HARVEST.** Medium to large; pale yellow, white-fleshed, tender and subacid. Ripens

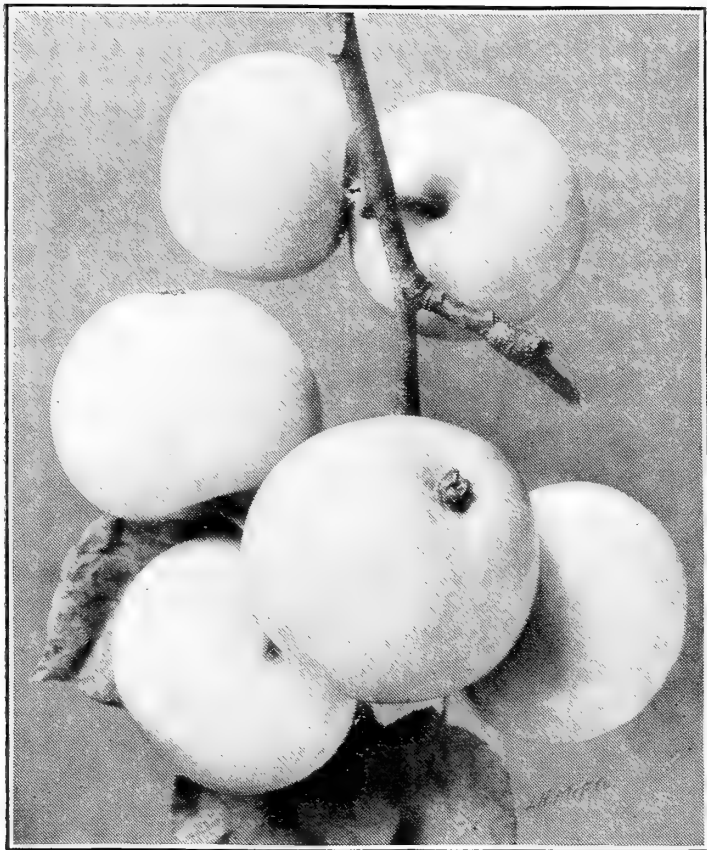
in July, but may be used for cooking earlier. Tree erect, moderate in growth, but quite productive.

**GOLDEN SWEET.** Of fine size, color and quality; one of the very best sweet Apples. Forms a vigorous, spreading, fruitful tree. August.

**KESWICK CODLIN.** A large, oblong, straw-yellow Apple. The tree is vigorous, bearing abundantly and when quite young. August to October.

## SUMMER APPLES, continued

**MAXSON'S EARLY.** A promising new sort, introduced as the best summer cooking Apple. The large, pale yellow fruits are tart, acid, tender and well-flavored. The tree produces well and regularly. August.



Yellow Transparent

**\*RED ASTRACHAN.** Large, roundish; deep crimson, with a thick bloom; juicy, tender, somewhat tart. Valued as one of the most beautiful early market and dessert Apples, also for the extra hardiness and vigor of the tree. August.

**SWEET BOUGH.** Large, light yellow, tender, sweet and excellent for baking. Of compact, moderate growth, producing large crops annually and is a profitable market sort. August.

**SOPS OF WINE.** An oblong, dark crimson Apple of medium size; flesh juicy, subacid, stained with red. The tree is a vigorous grower and is exceedingly fruitful. August.

**\*TETOSKY.** Of medium size, richly striped with red and yellow; juicy, pleasantly acid. Hardy and productive. July and August.

**\*YELLOW TRANSPARENT.** A particularly desirable and beautiful sort that usually bears the first year after planting, often in the nursery rows. Fruits of medium size, round-ovate, pale waxen yellow when fully ripe, pleasantly acid, tender and good, ripening in July and August, before Early Harvest. Free-growing and fruitful.

## AUTUMN VARIETIES

**ALEXANDER.** A very large and beautiful deep crimson Apple, with pleasantly flavored yellowish white flesh. Very hardy. September and October.

**AUTUMN STRAWBERRY.** Of good size, brilliant coloring and fair quality, this Apple is greatly valued for table and market. Tree robust and productive. Sept. and Oct.

**\*HAAS (Fall Queen, Horse).** Large, flat, ribbed or quartered; golden green, with russet markings; of good quality. Tree extra hardy, vigorous and fruitful. September to November.

**MAIDEN'S BLUSH.** Of uniformly good size, smooth, round, beautifully flushed with red on creamy yellow ground; flesh tender, of pleasant but not high flavor. A good market sort because of its attractiveness and the trees' heavy crops. Sept. and Oct.

**MUNSON'S SWEET.** Large, finely colored and flavored; free-growing and productive. October and November.

**\*OLDENBURG (Duchess of).** This best known of the Russian Apples is also the handsomest and most generally valuable, succeeding even in the Northwest, where most varieties fail, and yielding well in all sections. The fruits are large, rounded, striped with red and yellow; tender, juicy, of best quality for cooking and esteemed by many for the dessert. The tree bears young, abundantly; very hardy. Aug. and Sept.

**PUMPKIN SWEET.** Of fine size, round, yellowish russet; delightfully sweet and rich-fleshed. Tree vigorous; very valuable. October and November.

**RAMBO.** A pretty red and yellow Apple of medium size and good flavor; widely cultivated and everywhere esteemed. The tree is strong-growing and a heavy bearer. October to December.

**RED BEITIGHEIMER.** One of the largest and handsomest autumn varieties. Roundish conical; creamy yellow, deeply flushed with crimson; has pleasantly acid, firm, white flesh. Free-growing and fruitful. September.

**SWEET SWAAR.** Large, roundish flat, with golden yellow skin and rich, spicy flesh of the same color. The tree is vigorous and bears abundant annual crops. Excellent for home or market. Oct.

**WESTERN BEAUTY (Summer Rambo).** Large to very large; pale yellow, brightly splashed with red; the light yellow flesh is tender, juicy and melting. One of the most desirable sorts for home and market. October and November.

## WINTER APPLES

**ARKANSAS BLACK.** A remarkably large and handsome crimson-black Apple; perfectly smooth, roundish flat, lightly dotted with white. The flesh is yellow, juicy and delicious, keeping late. December to April.

**\*BABBITT** (Western Baldwin). Large, rounded, deep red, with delightfully crisp, rich, subacid flesh. Forms a strong, large tree, with tough, heavy leaves. January to March.

**BALDWIN.** A great market Apple; very productive of fair, handsome fruit. Large, rounded, deep red, with crisp, juicy flesh. Dec. to March.

**\*BELLE DE BOSKOOP.** Fruits of good size, beautifully colored with shaded reds on a creamy ground; crisp-fleshed, tender, juicy and high-flavored. Tree robust, bearing young and abundantly. January to March.

**BEN DAVIS** (New York Pippin, Kentucky Streak, etc.). Vies with Baldwin as a profitable market Apple for many sections. Large, handsome, brightly striped with red, variable in flavor; late-keeping. Remarkably vigorous and fruitful. January to April.

**BISMARCK.** This New Zealand Apple has been widely advertised and much planted. Its remarkable characteristic is that of early fruitage, one-year grafts and two-year trees perfecting fine and handsome fruits. Trees on dwarf stocks grown in pots or tubs make beautiful decorative specimens. Two-year, single-stem trees, about 18 inches high, produced fine fruits with us. These fruits are large, handsome, yellow, shaded with red, tender, subacid, of medium quality, good for dessert or cooking.

**\*BOIKEN.** A handsome Austrian variety that has been tested in many sections and is highly valued by some of our best orchardists. S. D. Willard commends the tree as a heavy annual bearer, the fruit for late keeping—"is at its best in

the spring"—and of a sprightly tartness that makes it especially valuable for cooking. It always sells at the outside price. Is a very desirable variety for the orchard man. The fruit is medium to large, yellow with red cheek; keeps until April or May. Tree is extremely hardy, with thick, heavy foliage.

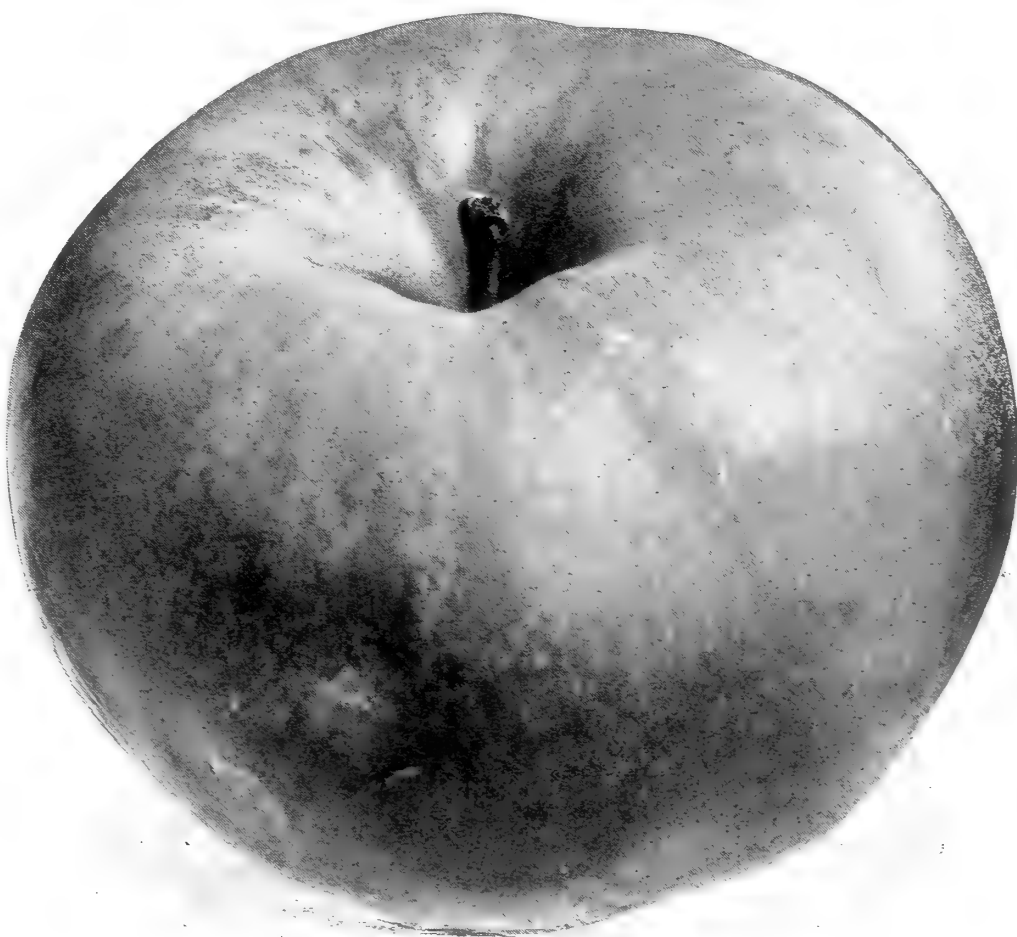
**\*BOTTLE GREENING.** Of medium size; golden green, with crimson blush; flesh white, pleasantly acid, melting. A strong, hardy native of Vermont. January and February.

**DOMINIE** (Winter Rambo). Large, flattened; greenish yellow, brightly striped with red; tender and good. Tree vigorous, bearing profusely. November to April.

**FALLAWATER** (Tulpehocken). A very large and handsome Apple of fair quality. Tree grows fast, and bears young and heavily. November to March.

**\*FAMEUSE** (Snow Apple). This beautiful Apple is one of our finest dessert fruits. It is of medium size, smooth, regular, deep crimson, with snowy white, tender, melting flesh of delightful flavor. The tree is vigorous and hardy, succeeding especially well in the North. Nov. to Jan.

**FLORY** (Flory's Bellflower). A medium to large, rich yellow Apple, with tender, subacid flesh. Hardy and productive. November and December.



Boiken

## WINTER APPLES, continued

**\*GANO.** An improved Ben Davis, adding to the good qualities of that variety a much handsomer fruit of deep, dark red, that gives a ready sale in market. December to March.

**\*GIDEON.** Medium to large; golden yellow, with bright blush; in general appearance suggesting the Yellow Bellflower; fine-fleshed, juicy, sub-acid. Very hardy, bears early and profusely. November to January.



Oldenburg (See page 6)

**GOLDEN RUSSET.** Of medium size, round-ovate; clear golden russet, with slight blush; tender, crisp, juicy and high-flavored. Tree robust and hardy, bearing large crops. November to April.

**GREEN SWEET.** One of the best winter sweet Apples. Of medium size, with dotted green skin and sweet, delightful flesh. December to April.

**\*GREENVILLE.** A seedling of the fine old Maiden's Blush, with all its good points emphasized, but with somewhat larger, more finely colored fruits that keep much later. They have been kept in an ordinary cellar until June. December to April.

**\*GRIMES' GOLDEN.** A medium to large Apple of beautiful golden color and of the very highest

quality. The hardy, vigorous tree produces large crops. Largely planted in the South and Southwest. January to April.

**HUBBARDSTON NONESUCH.** Large, handsome, yellow, overlaid with red; tender-fleshed, with distinct, delightful flavor. Strong grower and heavy bearer. November to January.

**JONATHAN.** Of medium size; pale yellow, heavily flushed with red; rich and juicy. Tree of slender, spreading growth, but quite fruitful. November to March.

**KING** (Tompkins Co.). A superb red Apple of extraordinary size and fair quality; the flesh is slightly coarse, but tender and vinous. An abundant annual bearer. November to March.

**\*McINTOSH RED.** This variety suggests the fine and handsome Fameuse in appearance and in the quality of its white and tender flesh. November to February.

**MAMMOTH BLACK TWIG.** A very large and showy dark red Apple from Arkansas, where it is largely planted as superior to the Winesap. The trees are of strong growth, hardy and bear profusely. November to April.

**MANN.** Medium to large; golden green, with reddened cheek; juicy and well flavored; keeps from January to April. Tree bears young and annually.

**NORTHERN SPY.** Large; striped, crimson next the sun; juicy, rich and aromatic, retaining these qualities until late spring or summer. The tree grows fast, bears well, blooms later than other sorts. Prune for an open head. January to June.

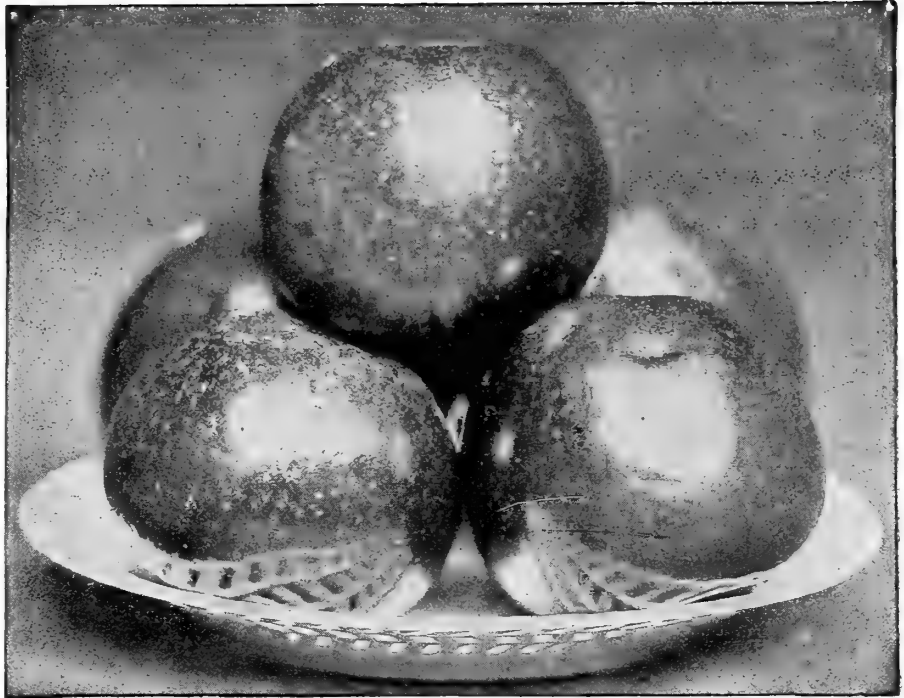
**\*NORTHWESTERN GREENING.** Like Grimes' Golden in shape and color; of good flavor; keeps long. Tree hardy and vigorous; an annual, abundant bearing sort. January to June.

**\*ONTARIO.** A large and beautifully colored Apple of delightful flavor. Creamy yellow, overlaid with deep, rich red; flesh tender, vinous, slightly aromatic, refreshing. January to April.

**WINTER APPLES, continued**

**OPALESCENT.** For size, quality, shape, color and beauty, Opalescent is away ahead of any Apple we have ever seen; in fact, we do not know of ever having seen a handsomer or better fruit. It is an accidental seedling, as tough and hardy as an oak, and the original tree has never failed to bear a crop even in the years of the greatest Apple famine. The season of 1898 was a notable example of this, as in that year Opalescent trees everywhere produced a full crop. One peculiarity of this Apple is the wonderfully high polish the skin takes on with slight friction, and it reflects surrounding objects like a globular mirror. The illustration shows this remarkable quality, the open work on the edge of the dish holding the Apples being reflected plainly on two of the fruits. In size Opalescent is large to very large; light in color, shading to very dark crimson; flesh yellowish, slightly tinged red, juicy and extra good, with exquisite taste and aroma. Testimonials from expert Apple growers all over the country have poured in upon the introducer of this wonderful Apple, and in order that our customers may be assured that they are getting the real thing, all Opalescent trees are sent out under the introducer's label, and we guarantee the trees to be true to name.

**PARADISE WINTER SWEET.** Large; creamy yellow, with rosy cheek; sweet and good. Productive and extremely satisfactory for either home or market. December to March.

**Opalescent**

The high polish to which this Apple is susceptible reflects the plate on which they are placed

**\*PETER.** Similar to Wealthy, of which it is a seedling, but ripens five or six weeks later. The tree is strong and hardy, bearing well. November to January.

**\*PEWAUKEE.** Medium to large, round-oblate; bright yellow, flushed with dull red; has white, tender flesh of good to best quality. Tree exceptionally hardy and robust; well suited to cold climates. January to May.

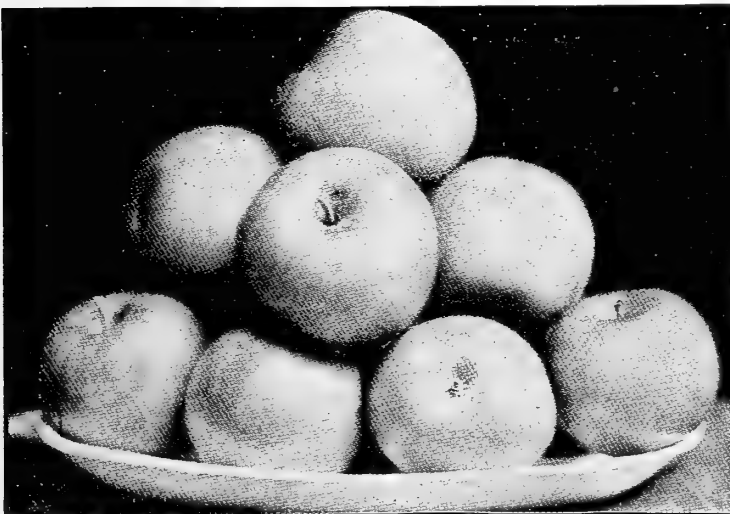
**RAWLE'S GENET (Never Fail).** Of medium size, round-ovate; pale yellow, streaked with red; juicy and excellent. Free-growing; prolific. January to April.

**RHODE ISLAND GREENING.** The well-known large, greenish yellow Apple, so much in demand for dessert and cooking. The tree bears regularly and profusely. An autumn Apple in the South, but keeps through winter North.

**\*ROLFE.** A superb large dark red Apple that outsells all others in its season. Of best quality. Hardy, free-growing, produces heavy annual crops. November to January.

**ROME BEAUTY.** Large and handsome, yellow with crimson cheek and tender, juicy, yellow flesh. Bears heavy annual crops. One of the best market Apples. November to February.

**\*SALOME.** Of medium and uniform size; quality good, retained even until summer. The tree is of good growth, bearing young and annually; holds its fruit well.

**Northwestern Greening** (See opposite page)





**Wolf River** (See opposite page)

**WINTER APPLES, continued**

**\*SCOTT'S WINTER.** One of the best long-keeping, very hardy varieties. The fruits are a bright, attractive red; the flesh white, crisp, spicy and pleasantly acid, at its best in April or May.

**\*STARK.** Large, roundish; golden green, with crimson shadings; flesh yellow, moderately juicy, mild, subacid. The tree makes a strong growth, bears early and in abundant, regular crops. One of our best Apples. January to May.

**\*SUTTON BEAUTY.** Although of recent introduction, this is now a leading market Apple in Massachusetts, where it originated, in western New York and in some other sections. The fruits are medium to large, roundish, waxen yellow, with brilliant blush of red; tender, juicy, subacid, of good flavor and good-keeping quality. The tree grows and produces freely. A handsome and valuable variety cordially commended to all orchardists. November to April.

**TALMAN SWEET.** Of medium size, pale yellow, slightly tinged with red; firm, rich, sweet. The most valuable Apple for baking. November to April.

**TWENTY-OUNCE** (Cayuga Red Streak). So extremely large and handsome that it is always a good sort for market; the flesh is coarse,

but has a pleasant, sprightly flavor. October to January.

**WAGENER.**

A fine deep red Apple of medium to large size; firm-fleshed, subacid and well flavored. The tree bears young and yields good annual crops that keep from December to May.

**\*WALBRIDGE**

(Edgar Red Streak). Of medium size, brilliantly striped with red; crisp,

tender, juicy. Excels in vigor, hardiness and fruitfulness of tree. March to June.

**\*WEALTHY.** Few varieties that are at once so hardy and so productive yield fruit of such good quality,—white-fleshed, juicy and vinous. It is handsome fruit of medium size, smooth, round and deep red. October to January.



**Stark**



WINTER APPLES, continued

**WHITE PIPPIN.** Large, creamy yellow, with tender white flesh of pleasantly acid taste. January to June.

**WINESAP.** The well-known deep red market Apple of the West and South-west. Of medium size and fair to medium quality. Productive; keeps from December to March.

**\*WOLF RIVER.** Large; greenish yellow, flushed with crimson; flesh white, half-tender, spicy, subacid. January and February.

**YORK IMPERIAL.** The Pennsylvania market and shipping Apple, long esteemed for its productiveness and the good quality of its fruit, which is quite distinct and attractive in appearance, of medium size, smooth, clear waxen yellow, flushed with carmine; the flesh is yellow, firm, of delightful flavor. December to February.

## CRAB APPLES

For preserving, jellies and ornament. Many of the newer sorts are delightful table fruits; all are unequalled for cider or vinegar. The trees are noted for their hardiness and vigor and usually bear the second season after planting.

**HYSLOP.** This tree has large, deep red fruits that hang thickly in clusters, making it very showy in autumn.

**MARTHA.** A perfect pyramid of bright color in fall when laden with its glossy yellow and crimson fruits, which are mildly tart and good for dessert or cooking.



Hyslop Crab

**MONTREAL BEAUTY.** Noted for the size and beauty of its fruits, which are bright yellow, brilliantly flushed with red; flesh yellow.

**POWERS' LARGE.** Waxed white, shaded with crimson and yellow; excellent for cooking.



Sutton Beauty (See opposite page)

**TRANSCENDENT.** This is the best and largest of the Siberian Crabs. The fruits are  $1\frac{1}{2}$  to 2 inches in diameter, bright yellow, striped with red; excellent for culinary use. Immensely productive.

**VAN WYCK SWEET.** Quite large for a Crab, light red and yellow, with a heavy bloom; flesh yellowish white, small-cored, sweet and tender.

**WHITNEY.** A beautiful early variety that ripens its heavy crop of large and handsome fruit in August. Smooth and glossy green, heavily splashed with carmine; firm-fleshed, juicy; a very fair dessert fruit. Tree hardy and vigorous.

**YELLOW SIBERIAN (Golden Beauty).** Of medium or large size; golden amber, with red blush in the sun.

## CIONS

of all the leading fruit trees can be supplied for grafting and budding at the proper seasons. State varieties and number of each that are desired and we will quote prices.



## PEAR TREES

For years we have made Pear trees one of our leaders, and take much pride in our blocks of them. The soil of our nurseries is particularly adapted to their culture, and we have made a special study of the methods of propagation, pruning, growing, etc. No better trees of either standard or dwarf Pears can be sent out from any nursery than the thousands we ship annually. We believe that few are so good.

The Pear tree will grow on almost any good soil, but thrives best in a rather heavy clay or loam. Standards are best for permanent orchards, dwarfs for fruit-gardens or small lots. Dwarfs must be planted deep enough to cover the junction of pear and quince 2 or 3 inches, and should have about half of the previous season's growth cut off each spring. Their side branches should not be removed higher than a foot from the ground. Given rich, well-tilled soil and pyramidal training, they are very productive and usually begin to bear the second season after planting. **Our dwarf trees are budded on the best French quince stocks.**

**Two very important points** in Pear culture are often neglected: the proper thinning and the gathering of the fruit. When the trees are heavily laden, the fruit should be thinned when about one-third grown, or it will be poor and the trees injured. Summer Pears should be gathered about ten days before they are ripe, autumn Pears at least a fortnight; winter varieties, if they will hang so long, may be left until the leaves begin to fall. If, on gently lifting the fruit, the stem separates readily from the twig, it is ripe for gathering. Winter Pears may be stored in any dry cellar and kept until early summer; other varieties may be ripened on shelves in any cool, airy place.

To descriptions of varieties we have appended the letters D and S, to indicate favorable growth as dwarfs or standards.

### SUMMER VARIETIES

**BARTLETT.** Large, coloring when fully ripe to waxen yellow, with red blush; juicy, melting, high-flavored. The tree bears early and abundantly. May be grown either as dwarf or standard, but succeeds best as a standard. Aug. and Sept.

**CLAPP'S FAVORITE.** A superb large, long, yellow Pear, richly flushed with russet-red next the sun; juicy and delightful; ripens before Bartlett. Pick the fruit of this variety at least ten days before it would ripen on the tree. August. D. and S.

**DOYENNE D'ETE.** Small, yellow, shaded with red; melting, sweet, delicious. The tree is robust and healthy. Early August. S.

**EARLY HARVEST.** Of good size and color; quality fair. Remarkably productive in the South, where it is the best early market variety. July and August. S.

**KOONCE.** Of medium size, yellow, with carmine cheek; sweet and high-flavored. The vigorous tree resists blight, and has frequently borne heavy crops when the fruit of other Pears was destroyed by frost. Handsome and highly recommended. July and August. D. and S.

**LE CONTE.** A seedling of the Chinese Sand Pear that is found quite profitable in some parts of the South. Similar to Bartlett in fruit and time of ripening, but of inferior quality. September. S.

## SUMMER PEARS, continued

**MADELEINE.** A very sweet and juicy medium-sized Pear of yellowish green color. Productive and free-growing. August. S.

**MARGARET.** Of medium size, golden green with russet cheek; so rich and delicious as to be generally pronounced the finest Pear of its season. Forms a shapely, vigorous tree, bears early and abundantly. Late August. D. and S.

**SOUVENIR DU CONGRESS.** Of fine size, largest of the Summer Pears, and brilliantly colored with yellow and red; smooth, firm-fleshed to the core; of fair quality. August to September. S.

**TYSON.** Medium in size, yellow, with russet shadings; melting, sweet, rich and aromatic. August. D. and S.

**LYERLIE.** A promising sort that ripens very early, and is of exceptionally good quality for its season. Of medium size, green, smooth, with small core and few seeds. The tree is healthy and hardy, grows well and usually produces good annual crops. July. S.

**WILDER.** One of the very earliest Pears, attractively colored and of excellent quality, this new variety always finds a ready sale in market and is largely grown by commercial orchardists. Of medium to small size, irregularly bell-shaped, but with smooth surface; pale yellow, with shadings of russet-red; flesh melting and delightful, with small core. The tree bears good crops early and annually. Early August. D. and S.

## AUTUMN PEARS

**ANGOULEME** (Duchesse d'). Among the largest of all our really good Pears. Greenish yellow, splashed with russet; flesh

white, juicy, rich-flavored. It succeeds well as a standard, but grown as a dwarf is the most profitable and luscious of all market varieties. We recommend it highly also for the home garden. October and November. D. and S.

**ANJOU** (Beurre d'). A large greenish Pear, shaded with russet-crimson; the flesh is high-flavored, rich and vinous; the tree very productive either as dwarf or standard. For late fall and very early winter use, we have no better variety. October to January. D. and S.

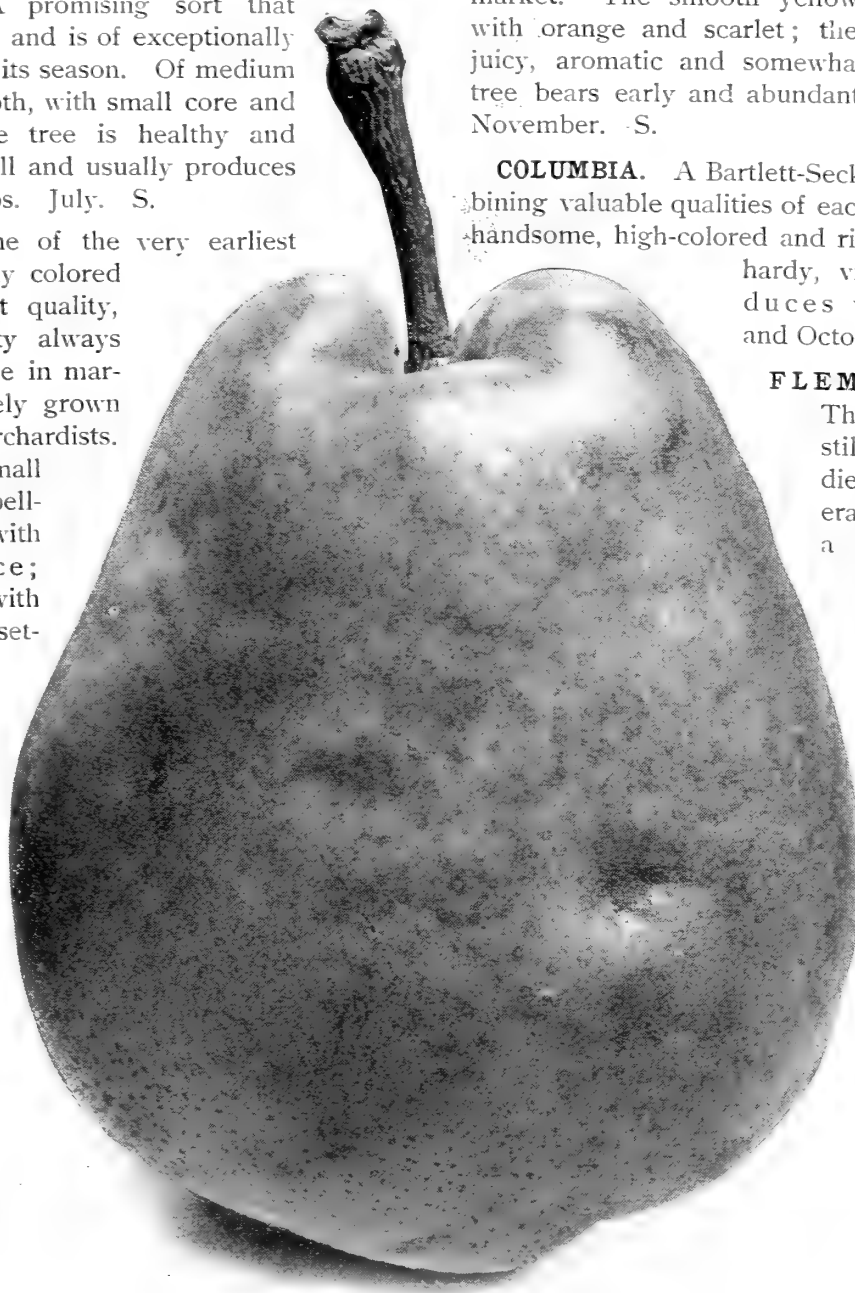
**BELLE LUCRATIVE.** A large and handsome yellowish green sort, with melting, delightful flesh. Productive. September and October. S.

**CLAIRGEAU.** The fine size and exceeding beauty of this Pear render it most valuable for market. The smooth yellow skin is shaded with orange and scarlet; the flesh is yellow, juicy, aromatic and somewhat granular. The tree bears early and abundantly. October and November. S.

**COLUMBIA.** A Bartlett-Seckel seedling, combining valuable qualities of each. Of good size, handsome, high-colored and rich-flavored. The hardy, vigorous tree produces well. September and October. D. and S.

**FLEMISH BEAUTY.** This fine old Pear is still one of the hardiest and most generally successful over a wide range of country, producing good annual crops of large, handsome fruit that is exceptionally good in quality. September and October. D. and S.

**GARBER.** One of the Japan Hybrids; earlier and larger than Kieffer. The tree is hardy, bears young and in heavy crops. Valuable as a market variety. September and October. S.



Angouleme



**Kieffer Pear Tree**

Planted in the spring of 1895, photographed October 24, 1898

**AUTUMN PEARS, continued**

**HOWELL.** A choice Pear of fine size and bright color, excelling also in the quality and flavor of its rich, aromatic flesh. The tree makes a vigorous growth, bears young, annually and abundantly. September and October. D. and S.

**KIEFFER.** This has become a profitable market variety on account of its good shipping and keeping qualities; its extraordinary size and beauty also make it very salable. While not of the best quality, it is one of the favorite sorts for canning or preserving, and the early-bearing, heavy-cropping trees render it obtainable in quantity. October and November. D. and S.

**LOUISE BONNE** (de Jersey). First-rate in quality, size and beauty; pale yellow, with red cheek. Very productive; one of the best dwarf sorts. September and October. D. and S.

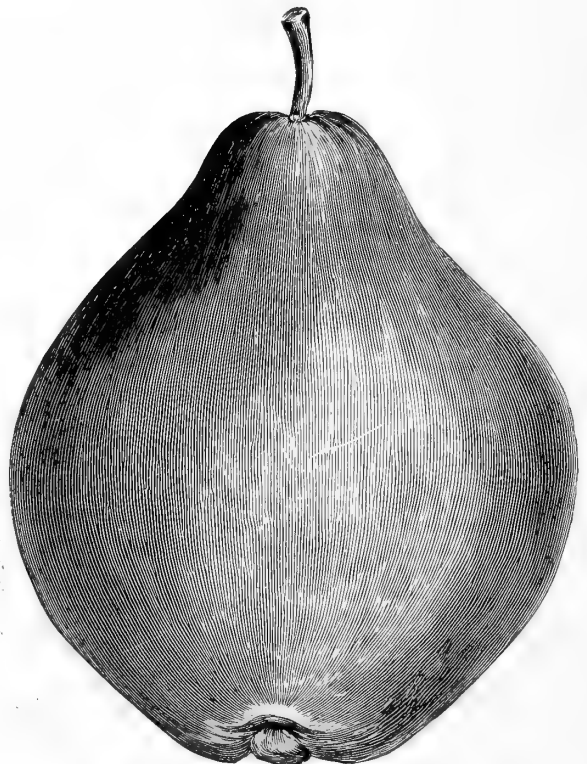
**ONONDAGA** (Swan's Orange). Large, attractive, excellent, though sometimes variable in quality. Tree robust, early-bearing, productive. October and November. S.

**ROSSNEY.** This new Pear combines excellent flesh and flavor, large size, bright color, and smooth, regular form with very superior shipping qualities. Two-year grafts have given us remarkably fine specimens of its fruit, which ripens about two weeks later than Bartlett and averages larger. The tree is vigorous, hardy in wood and in fruit-buds, and a great bearer. It seems safe to pronounce this Pear an acquisition worthy of wide planting. Sept. D. and S.

**SECKEL.** A beautiful and delicious little Pear that is the standard of excellence in its class. One of the richest and highest-flavored Pears known, always in demand for desserts and luncheons, and better known than any Pear of its class. The tree makes a somewhat slow but stout and erect growth. September and October. D. and S.

**SHELDON.** A large, round, russet-and-red Pear of the very first quality. Hardy, free-growing, fruitful. October. S.

**VERMONT BEAUTY.** Of medium size, roundish, yellow, heavily shaded with carmine; flesh exceedingly fine, sweet and juicy. The tree makes a strong, healthy growth and bears good crops. We commend this to the orchardist as one of the most desirable of recent introductions, which is sure to become very popular. October. D. and S.



**Rossney**



## AUTUMN PEARS, continued

**WORDEN-SECKEL.** A worthy seedling of the famous old Seckel, quite as sweet and luscious, with the same rare flavor and aroma, but superior

to the Seckel in size, beauty and keeping qualities. The fruits are beautifully smooth and regular, golden yellow with russet-red cheek, and sometimes keep from October until Christmas. The tree makes a more rapid and upright growth than Seckel and excels it in productiveness. The variety has been received almost everywhere with enthusiasm, and cordially endorsed by competent critics. D. and S.

## WINTER VARIETIES

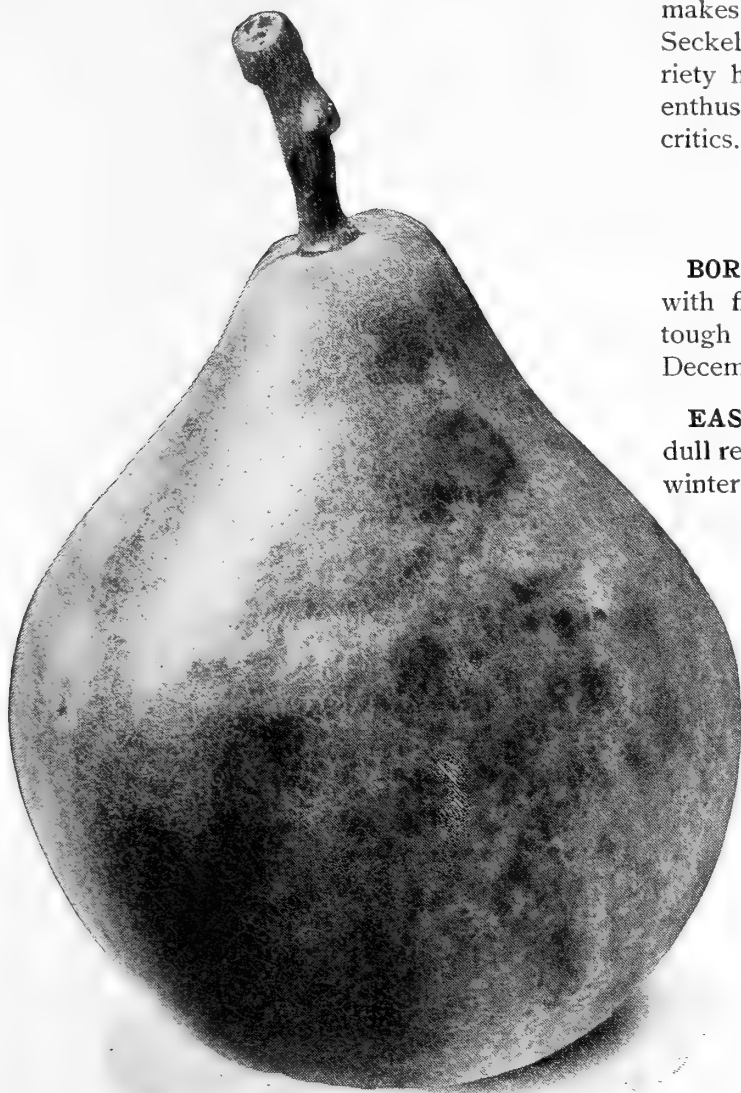
**BORDEAUX.** A Pear of the largest size, yet with flesh juicy, melting and rich. The thick, tough skin makes it valuable for winter keeping. December to March. S.

**EASTER.** Large, roundish oval, yellow with dull red cheek; quality excellent. One of the best winter Pears. Succeeds best on the quince. December to February. D. and S.

**LAWRENCE.** Medium to large, golden yellow, with melting, aromatic flesh. Unsurpassed as an early winter Pear. The tree is hardy, healthy and productive, bearing large crops annually. November and December. D. and S.

**MT. VERNON.** Of medium size, yellow and russet-red, with yellow flesh of good flavor. Tree bears early. December. D. and S.

**PRESIDENT DROUARD.** This French variety comes highly commended for its rich flavor and great keeping qualities. The fruit is large, handsome, melting, juicy, highly aromatic; the tree is vigorous, healthy and a prolific bearer. February to March. D. and S.



Worden-Seckel

## QUINCE TREES

The Quince crop is usually reliable and not often destroyed by capricious weather variations. The trees grow well in any good soil, but prefer a deep, moist loam. They are easy to prune and spray, and need but little attention. In almost all local markets they find a ready sale, as for preserves, jellies and canning we have no finer fruit. The fruits of all varieties are quite fragrant.

**ANGERS.** A productive old sort, with rather acid fruits.

**APPLE, or ORANGE.** The best of the older varieties, still more extensively cultivated than any other. Its large, roundish fruits ripen in October.

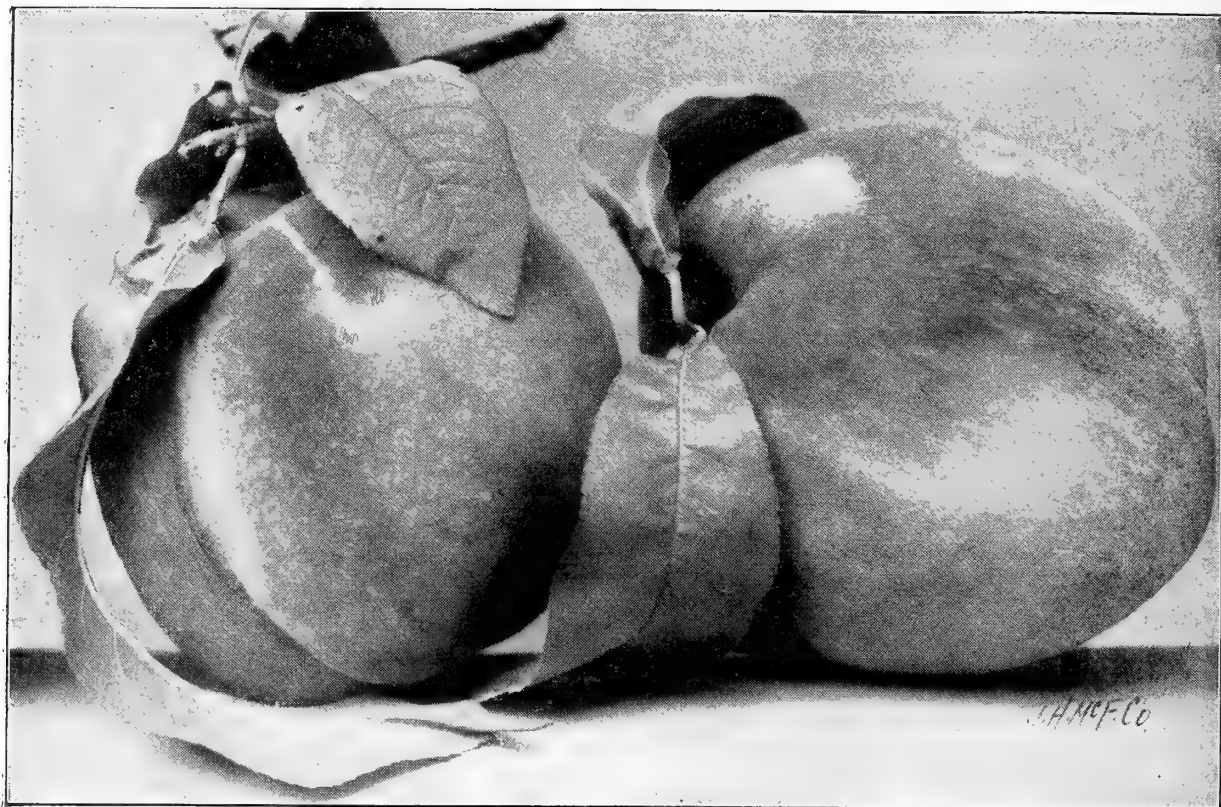
**MEECH.** In some sections this is a favorite sort, on account of its early bearing and great fruitfulness.

**PINEAPPLE.** This new seedling of Mr. Burbank's has nearly the same form and size as the Orange variety, but is smoother and more regularly rounded. It has a delightful pineapple flavor and makes delicious jellies and preserves.

**REA.** This seedling of the Orange Quince has all the good qualities of that variety; its fair, handsome fruit is fully a third larger.

**BOURGEAT.** This new variety has fruits of the largest size, round, smooth, of bright golden color, with small core. With careful handling it keeps in a good cellar until spring. The tree exceeds all others in fruitfulness and sometimes bears when three or four years old.

**CHAMPION.** A large, late-ripening sort, that produces good and constant crops. One of the best for sections not subject to early frosts.



Banner Peaches

## PEACH TREES

In the great peach-belt of Ohio and Michigan hundreds of acres of trees shipped from Painesville Nurseries are now in bearing. For over twenty years large planters of that region have depended on us entirely for their stock. Fine orchards of bearing trees in other fruit-belts of the country bear the same convincing evidence as to purity and superiority of the trees we ship.

Our soil and climate are both admirably adapted to the production of stocky, well-rooted Peach trees. Our stocks are seedlings grown from Tennessee native pits; these, budded from young, thrifty, bearing wood, ensure perfectly healthy, fruitful and vigorous trees. Our annual budding of the Peach ranges from 600,000 to 1,000,000 trees. These are grown on the bank of Lake Erie, two miles from any old trees that might communicate insect or fungous pests.

The Peach requires a well-drained, moderately rich soil; sandy loam is probably the best. Keep it clean and mellow about the roots of the trees, which are benefited by an occasional dressing of wood ashes or potash in some other form. In planting, always cut back the stems of young trees about one-third and cut side-branches to a single bud. Yearly pruning is necessary in order to keep the heads low and well furnished with bearing wood, for the fruit is borne on wood of the previous season's growth.

Clingstone varieties are marked with a star (\*).

**ADMIRAL DEWEY.** A perfect freestone, of fine size, form and color, with delicious yellow flesh that is yet firm enough to ship well. The tree is a strong, hardy, symmetrical grower and produces well. The very best early yellow freestone. July.

\***ALEXANDER.** Medium to large, pale green, heavily flushed with deep red; white-fleshed, tender and juicy. One of the largest and best extra-early varieties. Mid-July.

**BANNER.** Large, yellow, with crimson cheek; flesh yellow, firm, rich, excellent; keeps and ships

as well as any Peach on the market. In growth, early-bearing habit, productiveness and unusual hardiness of wood and bud, the variety is all that could be desired. Has been grown in Canada for fifteen to twenty years and found to produce good crops yearly through several seasons when all other sorts failed. The very best late market variety. October.

**BARNARD'S YELLOW RARERIPE.** Of medium size, yellow, with dark red cheek; flesh yellow, red at the stone, juicy, sweet and rich. The tree is extremely hardy and bears annual crops. A profitable variety. Early September.



**BEER'S SMOCK.** A large yellow-fleshed Peach, similar to Smock Free, but superior to it. Ripens a few days later and is a better annual bearer. One of the most profitable market sorts. Late September and October.

**BRONSON.** An excellent market variety from Michigan, found very hardy and productive. Large, yellow with red cheek; sweet and rich. Late September.

**CAPTAIN EDE.** A handsome, large, yellow Peach of excellent quality, said to be an improved Elberta, ripening ten days earlier. A good shipper. Early September.

**CARMAN.** A superb Peach of the Elberta type, new, but already a leader for general market and long-distance shipping. Quite large, creamy yellow, with deep blush; skin very tough, protecting the tender, spicy, juicy flesh, which distances in quality that of nearly all other Peaches. The tree is very hardy in bud, grows and produces well, ripening its profuse crops in August.

**CHAIR'S CHOICE.** Of largest size; deep yellow, with red cheek; flesh very firm, ripening five days earlier than Smock. Makes a strong, profuse-cropping tree. September.

**CHAMPION.** Unusually large, some specimens measuring 10 inches in circumference. A sweet, rich, juicy freestone, beautifully colored with creamy white and crimson; a good shipper. Hardy, productive, profitable. August.

**\*CHINESE CLING.** A large, creamy white Peach, finely shaded and marbled with red; the white flesh is red at the stone, very juicy, rich and vinous. First of August.

**CONKLING.** Large, round, golden yellow with crimson cheek; a high-flavored, profitable market sort. Early Sept.

**CRAWFORD'S EARLY.** A magnificent large yellow Peach, noted for size, good quality and wonderful productiveness. Late August.

**CRAWFORD'S LATE.** Similar to Crawford's Early, but about a month later in ripening. The fruit is of the largest size. One of the very finest and most profitable Peaches in our list. Late September.

**CROSBY.** Of medium size and peculiar roundish-flattened shape; bright yellow, splashed with carmine; flesh yellow, of

good flavor. Tree hardy and immensely productive. One of the best known Peaches and a decided favorite in some localities. September.

**\*EARLY RIVERS.** A large and very attractive creamy white Peach, with a delicate pink cheek. The rich, melting flesh is delightfully sweet and spicy. Distinctly beautiful and delicious. Early August.

**ELBERTA.** A leading market variety that thrives and produces well in all peach-growing sections. The fruit is large, handsome bright yellow overspread with crimson; juicy, good, and so firm as to ship well. Can be gathered while still hard and will ripen up without rotting. The great canning Peach. August and September.

**ENGLE'S MAMMOTH.** A very fine, large, late market sort, resembling Late Crawford, but later and more productive. Very profitable wherever grown. October.

**FITZGERALD.** We quote from the report of the Canada Experimental Farm an expert's opinion of this new Peach; "Among new varieties Fitzgerald is perhaps the most promising. It is of the Early Crawford type, and apparently an improvement on that old favorite. The fruit-buds are more hardy and the young trees will begin to bear the second year from planting. The fruit is large, bright yellow suffused with red; flesh deep yellow and of best flavor. Stone not so large as in Crawford." Last of August.



Elberta

## PEACH TREES, continued

**FOSTER.** Large, deep orange-red, becoming very dark red on the sunny side; flesh yellow, rich, juicy, with pleasant acidity. Earlier than Early Crawford. Late August.

**HORTON'S RIVERS.** This seedling of Early Rivers is exactly like it in color, size and flavor, but ripens later and is a perfect freestone, making it an exceedingly desirable variety. Aug.



Fitzgerald (See page 17)

**GLOBE.** Large, round, golden yellow; firm, sweet and delicious. Noted for rapid growth and enormous crops. September and October.

**GOLDEN DROP.** The almost translucent golden-colored flesh of this Peach renders it exceedingly attractive in market, where it sells at highest prices. The tree is hardy, bears early and profitably. Late September.

**\*GREENSBORO.** The largest and most beautifully colored of all early sorts. Earlier than Alexander and twice its size. The flesh is white, juicy, of delicious quality for so early a Peach. July.

**\*HALE'S EARLY.** Of medium size, almost clear red and white; flesh white, sweet, delicate. Mid-August.

**\*HEATH CLING.** Very large, creamy white with faint blush; of first-rate quality, long-keeping; valuable for preserving and canning. October.

**HILL'S CHILI.** Of medium size, oval, yellow shaded red; of medium quality, but esteemed for market in some localities for hardiness and productiveness of tree. September.

**JACQUES RARE-RIPE.** Large, dark yellow shaded with red; flesh yellow, juicy, pleasantly acid. A good market sort. Mid-September.

**KALAMAZOO.** Large, golden yellow with crimson cheek. The thick yellow flesh is of delightful flavor, the pit small. The tree is strong-growing, hardy and productive. September.

**\*LEMON CLING.** A large lemon-shaped and colored fruit, brightened with a dark red cheek. Hardy, productive. Mid-September.

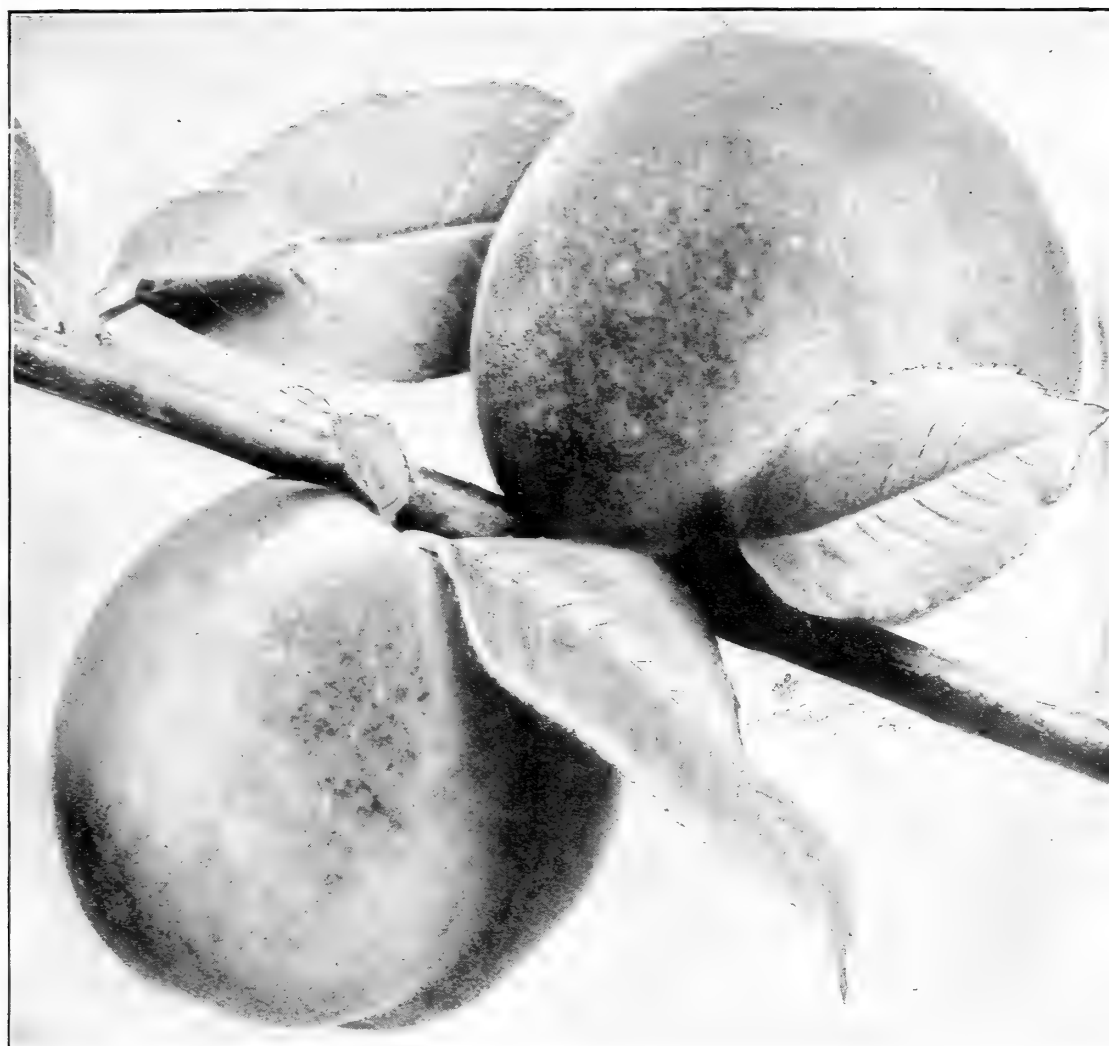
**LEMON FREE.** An exceedingly large and fine freestone of lemon shape and color. Sometimes measures over 12

inches around the center, and has thick, juicy flesh of excellent quality. Immensely productive. One of the most valuable sorts for home and market use. Especially valuable for preserving and canning. Late September.

**LEWIS.** The earliest white-fleshed freestone; attractively colored; a good shipper. Of vigorous growth, very hardy, immensely productive. Early August.

**MARSHALL'S LATE.** Very large, deep yellow; ripens heavy crops of fine fruit between crops of Smock and Salway, filling an important gap. Early October.

**MATTHEWS' BEAUTY.** This superb new freestone is introduced from Georgia, where it has been thoroughly tested and is being largely planted as the most valuable succession for Elberta. In bearing and shipping qualities it is fully equal to Elberta, is a size larger, superior in quality, and ripens about three weeks later. Golden yellow, streaked with red; flesh thick, firm, fine. Its good shipping qualities make it an exceedingly valuable variety for market. September.



Matthews' Beauty

/ **\*MILLER'S CLING.** A large Peach of perfect form and rich color, with sweet, yellow flesh that is remarkable for long keeping. Fruits kept in an ordinary room for two weeks showed no sign of decay. Mid-September.

/ **MOUNTAIN ROSE.** Above medium size, and exceedingly attractive because of its clear white and red skin; the white, juicy flesh is rich and delightful. Best market Peach of its season and one of the best early freestones. Tree thrifty and fruitful. Early August.

/ **\*OLDMIXON CLING.** Large, pale yellow, with red cheek; has rich, high-flavored flesh. Late September.

/ **OLDMIXON FREE.** A large, handsome freestone, with tender, excellent white flesh. Early September.

**PICQUET'S LATE.** Very large, yellow, with red cheek; flesh yellow, rich, sweet, high-flavored. October.

**PROLIFIC.** A choice large yellow Peach, valuable for succession to Early Crawford, for its fine shipping qualities, its beauty and its good quality.

Of strong, thrifty growth, hardy and productive. September.

/ **REDCHEEK MELOCOTON.** Large, oval, yellow, with red cheek; juicy and vinous. Hardy and productive. A fine, well-known old variety, ripe about September 10.

/ **REEVES' FAVORITE.** Large, round, red-cheeked; flesh yellow, juicy, melting, with vinous flavor; a good hardy variety. September.

**SALWAY.** Large, roundish, creamy yellow, with crimson cheek; the deep yellow, juicy flesh is melting, rich and sweet. One of the best late Peaches where it will ripen. October.

**\*SCHUMAKER.** Medium to large, deep red; white-fleshed, rich, juicy. A good shipping Peach. Late July.

**SCOTT'S NONPAREIL.** A fine large yellow sort; excellent for marketing. Late July.

**\*SMOCK CLING.** Large, oblong, yellow and red; juicy, subacid. September.

**SMOCK FREE.** So enormously productive as to be classed among the very best market sorts. A fine large, yellow Peach. Late September.

## PEACH TREES, continued

**\*SNEED.** The earliest Peach of all, ripening 8 or 10 days before Alexander, and very profitable on this account. Of medium size, creamy white, with a pretty blush, and of good flavor. Productive. July.

**SNOW'S ORANGE.** Medium to large, deep yellow; melting and juicy. A good market Peach on account of its hardiness, heavy crops and fine appearance. September.

**STEPHEN'S RARERIPPE.** A large, oblong, white-fleshed freestone, valuable for the beauty and high quality of its fruit, as well as for its early and heavy bearing tree. Ripens with the last of the Late Crawfords, and is in season about three weeks longer. Early October.

**STUMP THE WORLD.** A beautiful red and white Peach of good size and flavor. Very productive. Late September.

**SWITZERLAND.** Uniformly large, nearly all the fruit making first-grade; white, with red cheek. Very profitable in northern sections. September.

**SUSQUEHANNA.** A large yellow and red Peach that is both good and handsome. The tree is rather shy-bearing. Late August.

**\*TRIUMPH.** Widely advertised as the earliest yellow-fleshed Peach, ripening with Alexander, and as good for eating and shipping. The tree blooms late, and bears annual, abundant crops of handsome fruit. Freestone when fully ripe. July.

**WAGER.** Of fair size and good quality, brilliantly colored with red and yellow. The tree is healthy, hardy and long-lived, yielding good crops when other sorts fail. Valuable for canning. Ripens a week later than Crawford's Early.

**WHEATLAND.** Large, roundish, golden yellow with crimson blush; juicy, sweet, firm-fleshed, shipping well. Tree strong and healthy. Ripens between the two Crawfords.

**\*WILLIAMS' FAVORITE.** A very profitable market Peach of fine size and flavor, handsomely colored, a good shipper, remarkably hardy and productive in tree. September.

**WONDERFUL.** A seedling of Smock, and similar to it in every way. Late September.

**YELLOW RARERIPPE.** Large, deep yellow, delightfully flavored. Late August.

**YELLOW ST. JOHN.** A superfine early yellow freestone, nearly as large as Crawford, as finely colored and of even better flavor. Its round, showy fruits always attract attention and sell well. A fine dessert Peach. The tree bears while still small, and abundantly afterward. August.



Yellow St. John

## NECTARINE TREES

The Nectarine has a smooth skin, like the plum, and requires the same treatment for curculio. It is like the peach in other ways and requires the same culture. The following varieties are the best.

**BOSTON.** The largest and most beautiful variety known. Deep yellow, mottled and shaded with red; flesh sweet, with a peculiarly pleasant flavor; freestone. Tree hardy and productive. Sept.

**DOWNTON.** Large, pale green, with violet-red cheek; flesh rich and delightful, free from stone. August.

PERSIMMON, AMERICAN (*Diospyros Virginiana*)

A great change is wrought in the fruit of this tree by the early frosts. Under their influence it becomes sweet, high-flavored, rich and racy. Long after the leaves have fallen the branches are so heavily laden with plum-like fruits that the tree seems all aglow with their saffron-pink tint, and is very ornamental.

## PLUM TREES

Diseases of the Plum no longer appear formidable to the energetic orchardist. With only reasonably good care and culture the trees can be kept in a healthful condition and will produce fine crops of fruit. Annual sprayings with Bordeaux mixture keep away leaf-blight and fungus, besides helping to prevent black-knot. Should the latter appear, clean and prompt cutting away and burning of all diseased wood, together with clean cultivation, hold it well in check. The thinning of too heavy crops of fruit prevents fruit-rot. The curculio is destroyed by jarring the trees in the early morning, when the insects are dormant. A sheet is spread under the trees to catch the insects and stung fruits, all of which are destroyed. The work must be done daily, if the insects are numerous, for two weeks or more after the bloom falls from the trees. This sounds arduous, but does not take much time.

The market for high-grade Plums is almost unlimited. Only high-grade trees can produce them. Only trees of highest grade are shipped from Painesville Nurseries.

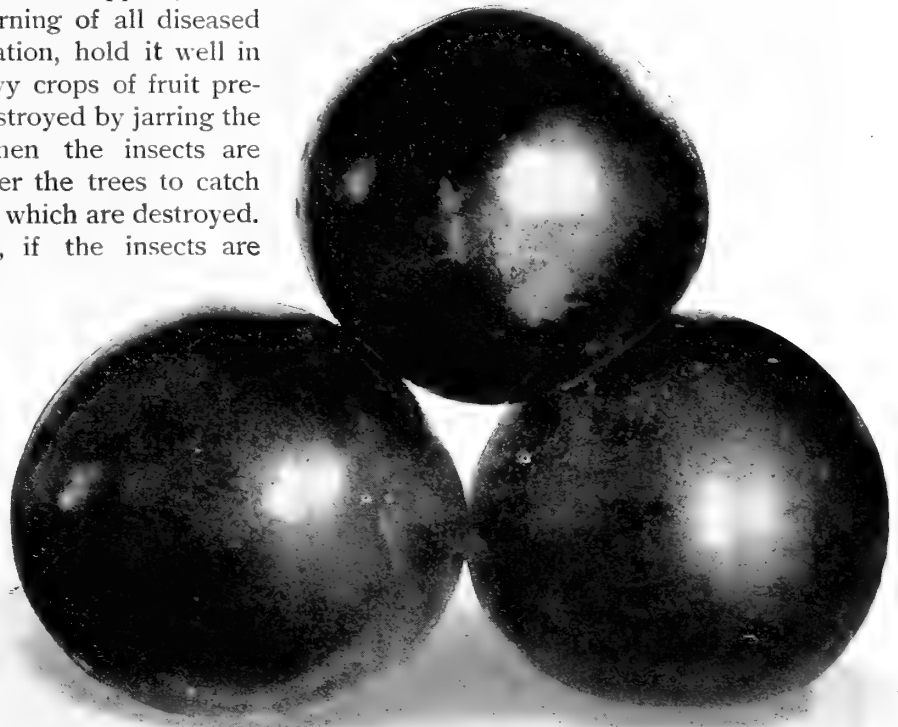
### EUROPEAN VARIETIES

**ARCHDUKE.** A large, dark purplish Plum, so firm-fleshed as to be excellent for shipping; hangs well to the tree. A good late market sort. Early October.

**BAVAY'S GREEN GAGE** (Reine Claude de Bavay). Large, round-ovate; green, marked with red in the sun; hangs long on the tree. One of the best foreign varieties. Late September.



German Prune



Bradshaw

**BRADSHAW.** Very large; dark violet-red; flesh yellow, juicy, good. A productive, valuable market sort. Middle of August.

**DIAMOND.** A superb and showy Plum of enormous size; dark purple, with thick bloom. Vigorous, hardy, productive. September.

**FIELD.** Large, oval; reddish; well-flavored; ten days earlier than Bradshaw, of which it is a seedling. The tree bears early and well. Valuable for market. August.

**GUEII** (Blue Magnum Bonum). Large, deep bluish purple, with thick bloom; flesh yellow, coarse, but sweet and good. While still young the trees are loaded with enormous crops, most of which they carry to maturity; vigorous and hardy, growing fast. Profitable for market. Early September.

**GERMAN PRUNE.** A valuable Plum of fair quality for dessert, but most esteemed for drying and preserving. Large, long-oval, purple with a thick blue bloom; flesh firm, sweet and pleasant, separating from the stone. Moderate to vigorous in growth. September.



## EUROPEAN PLUMS, continued.

**GENERAL HAND.** Very large, deep yellow; flesh coarse, but sweet and good, parting from the stone. Tree stocky, producing heavily. Early September.

**GRAND DUKE.** A valuable late Plum, with large and showy violet-red fruits that are entirely free from rot; of fine quality. Grows moderately and produces well. A good sort for home or market. Late September.

**IMPERIAL GAGE.** Above medium size, oval, golden green; flesh juicy, rich, delicious, free from stone. Tree of good growth and habit, productive. One of the very best Plums and very popular in some sections of the country. Mid-August.

**ITALIAN PRUNE** (Fellenberg). A handsome, oval, purple Plum, with thick, juicy and delicious flesh, free from the stone. Fine for drying. September.

**LOMBARD.** Medium to large; dark red; flesh yellow, of pleasant flavor. The tree is unusually vigorous, succeeding well even on light soils, and produces heavy annual crops. More largely planted than any other Plum and most valuable as a market variety. Late August.

**MONARCH.** Large, nearly spherical, deep purplish blue, with thin bloom; flesh pale golden green, juicy, pleasant, free from stone when ripe. Trees come into bearing young and yield abundant crops. We consider this one of the most valuable and profitable Plums. October, after Grand Duke.

**MARY.** A very beautiful Plum of the highest quality. Of medium size, golden yellow, with a delicate white bloom; flesh thick, sweet and delicious. Of sturdy, spreading habit, with glossy foliage; really ornamental. Bears annual and heavy crops. August.

**PEARL.** A handsome seedling of the French Prune that for honeyed sweetness, flavor and fragrance is unequalled. The fruits are larger than French Prunes, somewhat flattened, appearing clear white and translucent under their heavy white bloom. September.

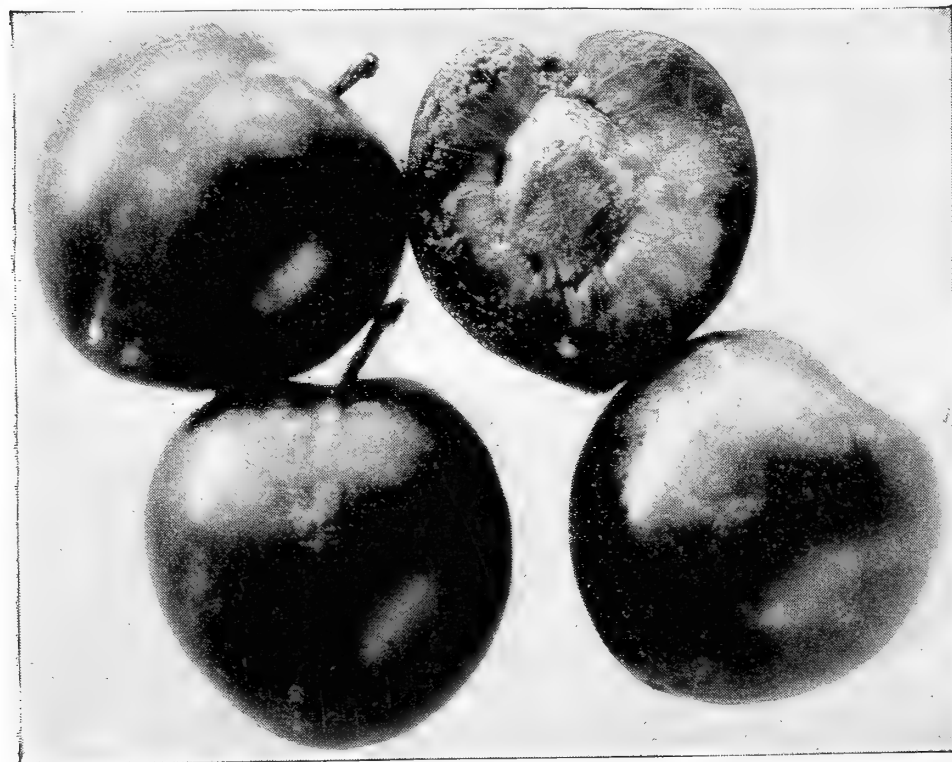
**PETER'S YELLOW GAGE.** Above medium size, oval, bright marbled yellow; very juicy and rich-fleshed. The tree grows and bears well, and is hardy in fruit and bud. August.

**POND.** A very large and showy English Plum of oval shape; light red changing to violet; the yellow flesh is sugary, but rather coarse. Trees are vigorous and fruitful. September.

**PRINCE OF WALES.** Of medium size, round, reddish purple; productive. Early September.

**SHIPPERS' PRIDE.** Quite large and showy, frequently 2 inches in diameter, oval, dark purple, of Damson type. The flesh is sweet and firm, keeping and shipping very long distances well. September.

**SHROPSHIRE DAMSON.** This largest of the Damson class is much used for preserving. The trees are vigorous and enormously productive. One of the old favorites. October.

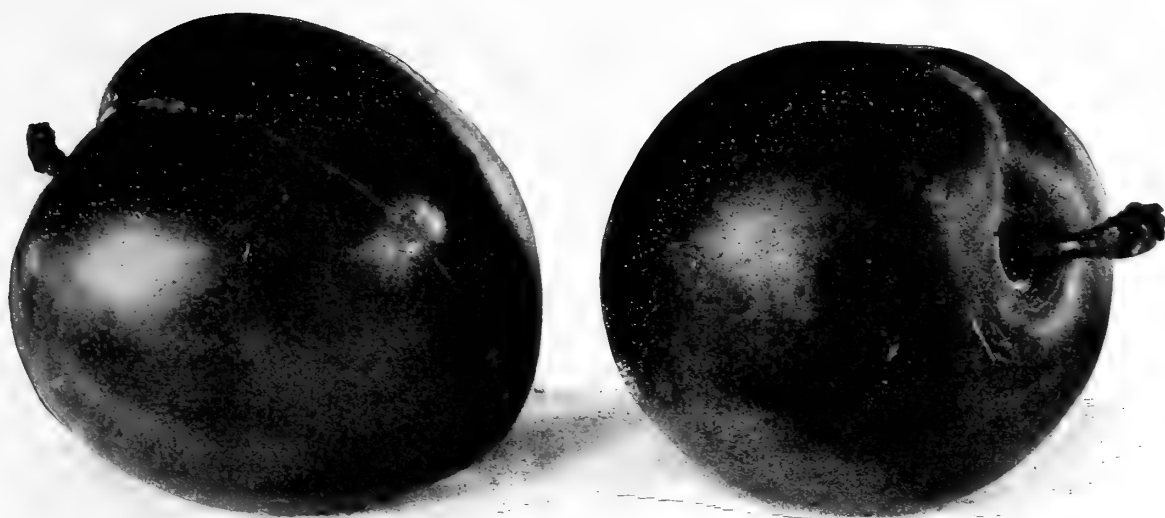


Monarch Plums

**SUGAR PRUNE.** A seedling of the French Prune grown by Luther Burbank. The fruits are very large, twice the size of French Prunes, dark purple, with thick white bloom; flesh yellow, tender, sugary. Superior to French Prune also in growth, form and productiveness of tree. August.

**YELLOW EGG** (Magnum Bonum). This very large and beautiful egg-shaped yellow Plum is a great favorite for sweetmeats and cooking on account of its slight acidity. The flesh is yellow, slightly coarse, and clings to the stone. Productive. Late August.





Chabot

## JAPANESE PLUMS

The enthusiasm for this class of Plums continues to spread, some growers declaring that they pay better than any other tree fruits. They are important for the variety they add to our Plum list, and especially because so rich in very early kinds. The trees are strong and quick-growing, suited to all sorts of soils, seldom affected by black-knot, extra hardy, and bear full crops in two or three years after planting. When properly thinned the fruits are marvels of size and beauty; firm-fleshed enough to resist stings of the curculio, to ship well and to keep for several weeks; delicious enough to tempt the most capricious appetite. From earliest to latest they cover a season of about three months. We offer a select list of the best sorts.

Many large growers prefer Japan varieties on peach stocks—they all thrive admirably on the peach. We can supply trees on both plum and peach stocks.

**ABUNDANCE.** Of medium size, large when thinned; amber, with markings of red; juicy, sweet, of good quality when well ripened. May be picked when it begins to color; will keep a long time, color well and be almost as rich and sweet as if ripened on the tree,—a strong point for market growers. Usually the fruit must be thinned to prevent overbearing. August.

**AMERICA.** Larger than the average Japan Plum and much larger than our popular native sorts; golden yellow, with pink blush and white bloom; the flesh is moderately firm and of good flavor, keeping well. Tree bears young.

**APPLE.** A superb deep reddish purple Plum, in shape and size like a medium-sized apple; flesh red, firm, delightful, keeping and shipping remarkably well. Strong-growing, with large foliage. Ripens after Burbank.

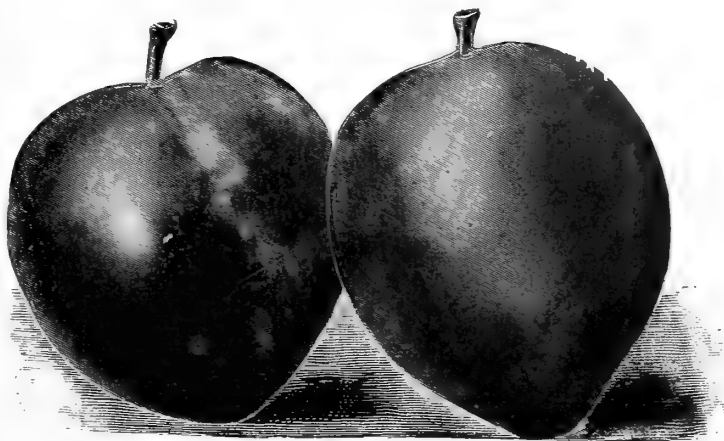
**BARTLETT.** Of medium size; dark red; flesh yellow, juicy, suggesting the Bartlett pear in flavor and fragrance. The tree is of strong, upright growth, spreading but little and usually fruiting the second season. Ripens before Burbank.

**BURBANK.** When properly thinned the fruit of this Plum is very large,—5 to 6 inches in circumference—nearly round and bright cherry-red, making it very tempting in appearance. Its deep

yellow flesh is sweet, meaty and quite firm, keeping and shipping finely. Tree vigorous and spreading; needs close pruning. Late August.

**CHABOT.** Of fine appearance and a splendid selling Plum. Above medium size; heart-shaped, yellow, almost covered with cherry-red and a thick white bloom; flesh yellow, firm, sweet, ripening late and keeping long. Tree vigorous, bears well. Early September.

**CHALCO.** Fruits large, flattened, almost stemless, surrounding the branches in thick ropes; skin violet-purple, covering sweet, firm, yellow flesh. Exceedingly productive. Ripens just before Burbank.



Red June

## JAPANESE PLUMS, continued

**CLIMAX.** Mr. Burbank regards this Plum as one of his most valuable introductions, and wherever planted it is warmly praised. Like all Japanese Plums it is abundantly productive of its very large, heart-shaped fruits, which are a deep rich red, fragrant, sweet-fleshed and fine in every way. One of the earliest of all Plums to ripen. The tree is strong, thrifty and hardy.

**OCTOBER PURPLE.** Bears abundant crops of large, round, reddish purple Plums of good quality. One of the largest and strongest-growing Japan Plums. The best for late market.

**RED JUNE.** The great early market Plum. Medium to large; deep vermilion-red, with beautiful bloom, very showy; flesh light lemon-yellow, firm, slightly subacid, delightful; half-cling, with small stone. "Reliability of tree, size and beauty of fruit, its early ripening and long-keeping qualities make this Plum a prize-winner," says one of our prominent orchardists. Ripens between Red May and Abundance.

**SATSUMA** (Blood). A delicious Plum for canning, already famous for that purpose, and a grand market sort; in season after the European Plums and the main crop of peaches are gone. Very large, nearly round, with deep red skin and flesh; firm, of good flavor; will keep from one to three weeks after picking. Yields well.

**SHIRO.** Very productive of medium-sized clear light yellow fruits, having a thin white bloom and firm, pleasantly acid flesh. Very hardy and vigorous; valuable for cold sections where some of the best sorts will not thrive. Ripens before Burbank.

**SIMONI** (Apricot Plum). Large, somewhat flattened, of peculiar shape and flavor; deep red, with firm, aromatic flesh. Not especially valuable. Aug.

**SULTAN.** A large, round and very handsome Plum that attracts attention anywhere by its size and beauty. Skin and flesh are a deep wine-red,

the latter high-flavored, like the Satsuma, and just acid enough to be excellent for cooking and preserving. Keeps long and ships well. The tree makes a rapid yet compact growth and yields heavy crops. August.



Climax

**WICKSON.** This largest of the Japan Plums is superb in every way. The color is bright cherry-red, covered with a light bloom; the pit is small for so large a fruit, the flesh thick, sweet, tender and rather dry, indicating good keeping and shipping qualities. The yield from good Wickson orchards is very heavy, the fruit all large, with few seconds, and very little rotting. The fruit sells almost on sight. Large orchardists are planting this Plum by the thousand. September.

## IMPROVED NATIVE VARIETIES

In some sections these are the only Plums that are entirely hardy and sure to yield good crops.

**DE SOTO.** Of medium size, yellow marbled red. One of the best sorts to plant among varieties needing pollination. September.

**HAWKEYE.** Large, light mottled red, with good firm flesh that markets well. September.

**MILTON.** Above medium size, dark red, flesh excellent. Productive, desirable. July.

**POTTAWATTAMIE.** Large, pretty fruits of bright yellow, marked with pink and white dots. Even small trees load themselves with fruit. August.

**ROBINSON.** Yellow, nearly covered with light red; showy, ripens early. Productive, profitable.

**WEAVER.** Fruits large, purple, with blue bloom; flesh excellent. Bears well and regularly. August.

**WILD GOOSE.** Attractive red fruits of medium size, with sweet, juicy flesh. July.

**WOLF.** A perfect freestone of fine size. Unusually productive, vigorous and hardy. August.



Wickson



## CHERRY TREES

Cherries may be divided into four groups: Hearts, Bigarreaus, Dukes and Morellos. The trees are naturally hardy, succeeding best on dry soils, and may be trained to any form suited to conditions. In climates where the bark does not burst, the standard form, with four or five feet of clean trunk, is preferable for orchards. For dooryards, standards of erect varieties, with large foliage, are most suitable. For fruit gardens and for climates where the bark of Cherry trees is apt to burst, pyramidal trees, low standards, or dwarfs with branches only a foot from the ground, are best suited.

### HEARTS AND BIGARREAUS

Both Hearts and Bigarreaus are heart-shaped and very sweet; they are sometimes called "Ox-hearts." The Heart Cherries have soft, tender flesh and are usually of dark colors. The Bigarreaus are firmer fleshed and usually of light colors. Both sorts are more impatient of damp, soggy soils than even the Dukes and Morellos, but in suitable ones grow rapidly into large, pyramidal trees, with large, glossy leaves and heavy crops of fine fruit. They make good street and dooryard trees.

**ALLEN.** This superb new variety originated within a few miles of our nurseries. After testing and observing it closely for several years, we believe that it will be the leading market variety in all sections where the sweet Cherries succeed. Of fine size and appearance, glossy crimson-black; meaty, firm, sweet and delicious, it sells for the highest price paid for Cherries in the Cleveland market. Part of the fruit frequently ripens late and is marketed in August; so far it has been free from all rot and disease. Late July and early August. The illustration, which is much reduced in size, shows its wonderfully prolific quality.

**BLACK EAGLE.** Large, red-black, with tender, rich and juicy flesh of high flavor. Early August.

**BLACK TARTARIAN.** This fine old variety produces immense crops of very large purplish black fruits of mild, sweet, jelly-like consistency. The tree makes a beautiful, erect growth. Late June and early July.

**EARLY LAMAURIE.** A fine dark purple Cherry, with rich sweet flesh. Well adapted to the South, where it ripens as early as May 16. Earliest of all sweet Cherries. June.

**ELTON.** A large and beautiful early Cherry; pale yellow, with pink cheek; of good flavor. May and June.

**GOVERNOR WOOD.** A rich and delicious large, light red Cherry that hangs well on the tree. Very popular. June.

**NAPOLEON.** Of fine appearance and the very largest size; yellow and amber, with bright red blush; flesh firm, juicy, delicious. Profitable for market; finds a ready sale both for canning and dessert. Forms a grand tree that ripens its heavy crops in July.

**ROCKPORT.** Large, light red and amber; half-tender, sweet and good. Late June and early July.

**SCHMIDT'S BIGARREAU.** Heavily clustered fruits of largest size, deep crimson-black; tender, juicy, well-flavored. July.



Large Montmorency

HEART AND BIGARREAU CHERRIES, continued

**WINDSOR.** A splendid large, liver-colored Cherry that hangs a long time and roots but little. The flesh is remarkably firm and good, the tree very hardy and fruitful. Exceedingly valuable for late market and home use. July.

**YELLOW SPANISH.** Large, pale yellow with light red cheek; firm, juicy and delicious. Late June.

## DUKES AND MORELLOS

These Cherries are quite distinct from preceding sorts. They grow more slowly into smaller trees, with thicker leaves of deeper green. The branches of the Duke Cherries are sometimes strong and erect, but the Morellos are of slender, spreading growth. With a few notable exceptions among the Dukes, both classes have round acid fruits. They succeed well in localities where the Hearts and Bigarreaus are too tender, and are much grown as dwarfs and pyramids on Mahaleb stock.

**BALDWIN.** Fruit very large, almost round, dark red, slightly subacid, the sweetest and richest of the Morello type. Remarkable for earliness, quality, vigor, hardiness and productiveness. Particularly profitable in the West. June.

**DYEHOUSE.** Similar to Early Richmond, but several days earlier. Largely planted for early market. June.

**EARLY RICHMOND** (English Pie Cherry). An exceedingly productive and reliable old variety, with dark red fruits of medium size and sprightly acid flavor. Unsurpassed for cooking. June.

**EMPRESS EUGENIE.** Large, dark red, with rich, juicy flesh. A thrifty, productive tree. Early July.

**LATE DUKE.** This fine late Cherry has large, light red fruits. Of strong, upright growth. Last of July.

**LARGE MONTMORENCY.** Larger and finer than Early Richmond, and one of the finest flavored Cherries in this class. The strong, hardy tree makes rapid growth and bears enormous crops. Valuable for canning and preserving. One of our very best Cherries. Late June.

**LOUIS PHILIPPE.** Large and beautiful fruits of blackish red; flesh tender, mildly acid, good to best. Mid-July.

**LUTOVKA.** A Russian Morello, with medium to large fruits of blackish red; firm-fleshed, of good quality, clings tenaciously to its long stem. August.

**MAY DUKE.** Large, dark red, juicy, rich; a superior and productive old sort. June.

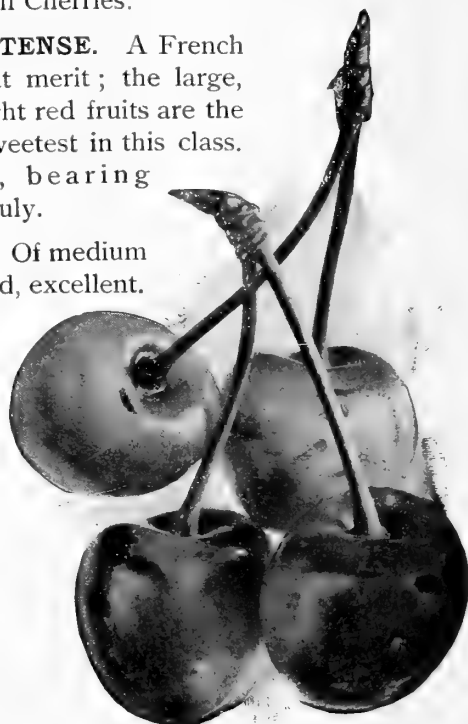
**MONTMORENCY ORDINAIRE.** Fruit large, red, quite handsome; ripe late in June. The tree is hardy and very prolific. A valuable market variety.

**OSTHEIMER.** Large, heart-shaped, nearly black when ripe, juicy and rich; fine for dessert and cooking; unsurpassed for market. Trees bloom late, and bear fruit quite young. One of the most productive of all Cherries.

**REINE HORTENSE.** A French Cherry of great merit; the large, handsome bright red fruits are the mildest and sweetest in this class. Tree vigorous, bearing good crops. July.

**VLADIMIR.** Of medium size, mildly acid, excellent. A hardy, fruitful Russian sort. July.

**WRAGG.** Similar to English Morello, but said to be much hardier in tree. Valuable variety that originated in the west. July.



Windsor

## APRICOT TREES

Ripening as it does between cherries and peaches, the Apricot is a most welcome fruit, both tempting and delicious. The trees, as hardy as those of the peach, should be planted on a northern or western exposure to prevent early blooming. They need the same treatment for curculio as the plum. We can supply the trees on both peach and plum stocks.

**EARLY GOLDEN.** Small, pale orange color ; juicy, sweet ; tree hardy and fruitful. Early July.

**EARLY LARGE MONTGAMET** (Alberge de Montgamet). An especially fine Apricot, with large round fruits of deep yellow, flushed with red. The flesh is firm, juicy and good. The tree is very hardy and produces heavily. Largely planted for market in New York and other states. Early July.

**HARRIS.** Uniformly large and oval, golden yellow, with red blush ; flesh rich and delicious. Tree hardy and productive. Mid-July.

**MOORPARK.** One of the largest Apricots ; orange, with red cheek ; flesh thick and well flavored, parting from the stone. Very productive. August.

**ROYAL.** Large, yellow with red cheek ; rich and juicy. Late July.

### RUSSIAN VARIETIES

This race is quite distinct from and hardier than European varieties. The trees begin to bear early and their yield is good. They are recommended for planting where other Apricots and the peach cannot be grown. The trees require about the same treatment as peach trees.

**SUPERB.** This variety excels in quality as well as in hardiness and productiveness. It has large, beautifully colored fruits, with rich, sweet and



Early Large Montgamet Apricot

meaty golden yellow flesh ; averages better in size and quality than any other Apricot and bears more constantly.

Besides Superb, we offer also the following best six sorts : **Alexander, Alexis, Catherine, Gibb, J. L. Budd and Nicholas.**

## MULBERRY TREES

These are sometimes classed among ornamental trees on account of their large, handsome leaves, dense shade and fine, compact growth. All the kinds are productive ; the everbearing sorts fruit for three months.

**DOWNING'S EVERBEARING.** One of the most prolific varieties, bearing an abundance of large, black, sub-acid fruits. It is extremely hardy and much planted all over the country. Its long-bearing season makes it a universal favorite wherever grown. We guarantee our stock of this variety to be true to name.

**NEW AMERICAN.** This, also, is an everbearing variety and quite hardy. It bears fruits of the finest size and flavor from mid-July until autumn.

**RUSSIAN.** On account of its vigorous, hardy habit, this tree is much planted for hedges, wind-breaks, etc., in the western states. The fruit is of very little value.

**WHITE** (*Morus alba*). Valuable for feeding silkworms.

**BLACK** (English). The tree is very ornamental and is fine for shade, bearing large, long, black fruits of good flavor.



## NUT TREES

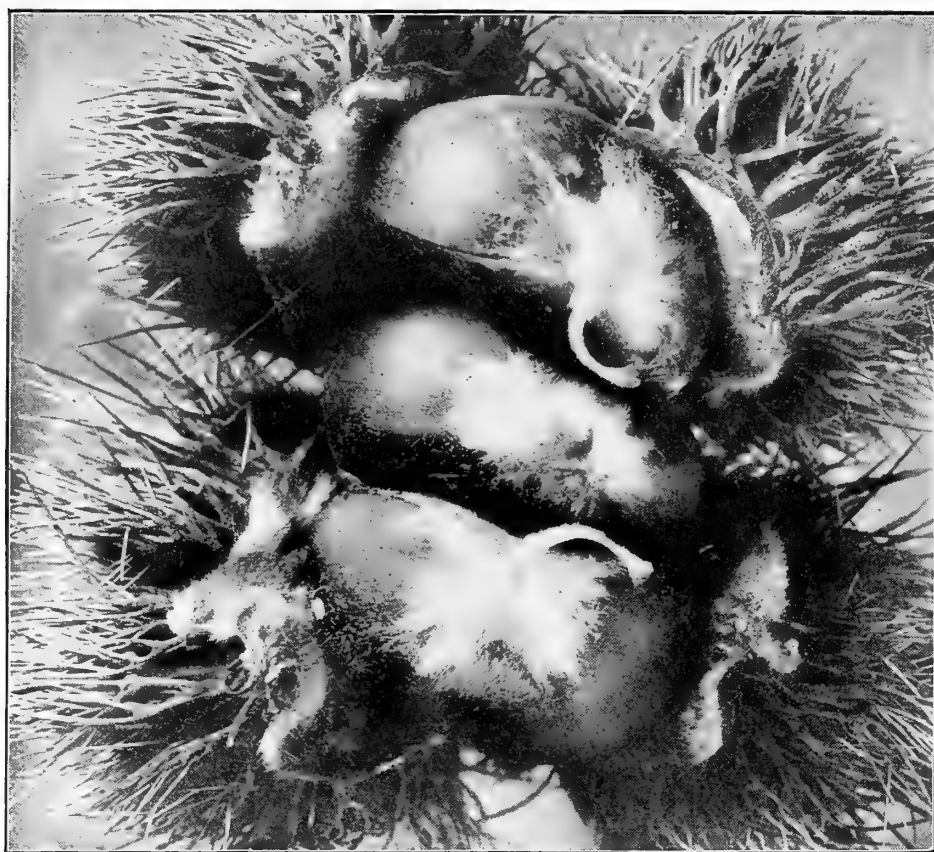
The constant and growing demand for nuts, and the immense quantities of them yearly imported to meet it have given a great impetus to the planting of nut-bearing trees. So palatable and wholesome are the nut-kernels that they should become a staple article of food here, as in Europe. The returns from established nut-bearing orchards, as well as numerous experiments, show plainly how successful nut culture may be made in America. Most farms contain land that would pay better planted in nut-bearing trees than in anything else; the nuts, in many cases, paying better than farm crops or fruits, while the trees are growing into valuable timber.

### ALMOND

**HARD SHELL.** The tree is very showy when in bloom. The kernels of the nuts are large, plump and sweet. Hardy.

**SOFT, or PAPER SHELL.** Encloses as fine a nut in a softer shell. Needs protection.

tree has sometimes brought \$25. Not so sweet as the American in nut, and not so hardy in tree. We offer the following Spanish or European seedlings in strong, top-worked trees, recommending the varieties as the best of the improved seedlings yet introduced. Trees make beautiful ornaments on the lawn and are valuable as shade trees.



Japanese Chestnuts

### CHESTNUT

**AMERICAN SWEET.** The nuts of this tree form quite an item in our commerce. Although smaller than some other sorts, they are sweeter and more delicately flavored. This Chestnut is also a grand timber and ornamental shade tree, spreading, in midsummer, billowy masses of creamy, fragrant catkins above its large, deep green leaves, making a most beautiful specimen on the lawn.

**SPANISH.** A handsome, round-headed tree, producing abundant crops of very large nuts that sell readily for good prices. The crop of a single

**RIDGELEY.** The nuts of this variety are large, smooth, of uniform size and fine rich color, in quality equal to nuts of the best American seedlings. The nuts always bring very high prices in market and on the stands. They ripen early and are produced in heavy crops. The trees make a strong, handsome growth and begin bearing before they are taken from nursery rows.

**SCOTT.** Produces splendid crops of large, beautiful, mahogany-colored nuts, almost free from fuzz and of good quality. Roasted or boiled the nuts are of splendid flavor. So far has been almost free from chestnut-weevil. Midseason.

**HANNUM.** Light-colored nuts of medium size and good quality, produced in heavy crops; tree large and spreading.

**NUMBO.** Nuts quite large and of fine appearance, sweet and early to ripen. Tree enormously productive, bearing regularly.

**PARAGON** (Great American). The most widely planted and most uniformly successful variety yet cultivated in the United States. The three or more broad, thick, handsome nuts in each bur are of extra size and quality. The tree makes a strong growth, bears early and abundantly; trees four years from graft have produced one bushel each.

### JAPANESE CHESTNUTS

This race has many good points to recommend it to the planter: Productiveness and early-bearing habit, the large size and beauty of the nuts, their freedom from worms, the good quality of nuts from American-grown seedlings and from the imported seedlings here offered, the trees' habit of uniting well with our native stocks, their beautiful semi-dwarf habit and their freedom from leaf diseases. Besides good unnamed seedlings we offer the two named varieties found most valuable.

**EARLY RELIANCE.** The nuts of this variety are very large, smooth, and of an attractive rich brown. They sometimes measure 4 inches in circumference and are crowded from three to five in the bur. The tree is dwarf and spreading, enormously productive of its great burs, one-year grafts being frequently loaded down with them. September 18 to 20.

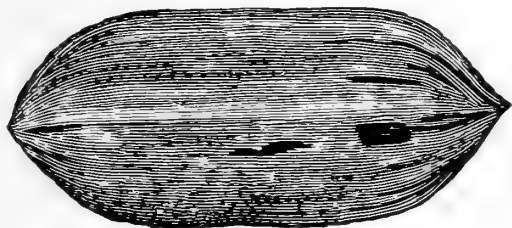
**PARRY'S GIANT.** One of the largest and most beautiful of this group. The nuts measure 6 to 7 inches in circumference, and there are usually two in the bur; they are smooth, dark and attractive. The trees make a neat, sturdy growth, and bear heavy crops. Late September.

### FILBERT

**ENGLISH.** The Filbert succeeds well on almost all soils, the little trees or bushes bearing early and abundantly. We select this variety as being most hardy and generally satisfactory over a wide territory. The nuts are nearly round, rich-flavored and toothsome.

### HICKORY

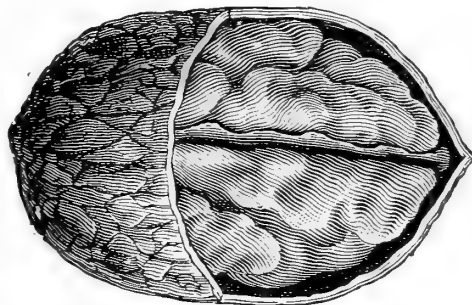
**SHELLBARK.** In flavor and quality of kernel this is generally esteemed the choicest of our native nuts,—of all nuts, some experts have said. The tree is a handsome, stately shade tree, with tough white wood of great strength and elasticity, marketable at high prices.



Pecan

**PECAN.** This species of the Hickory may well rank first among our native nuts in value and cultural importance. The trees grow fast, are reasonably precocious in development and bearing, and produce large crops of thin-shelled nuts that are full-kernelled and delicately flavored. These

nuts are already quite a factor in commerce, growing in importance yearly. In the southern and middle states, where hardy, Pecan orchards yield handsome profits.



English Walnut

### WALNUTS

**AMERICAN BLACK.** The large, oily nuts are borne in heavy crops. They are much relished by children, and always marketable at a fair price. The tree grows quite fast; its dark, rich wood is exceedingly valuable.

**ENGLISH, PERSIAN, or MADEIRA.** A fine, lofty-growing tree, with handsome, spreading head; produces large crops of thin-shelled, delicious nuts which are always in demand at good prices. The large orchards of California and the South are yielding handsome profits, and still the nuts are imported in great quantities. Not hardy enough for general culture north.

**ENGLISH, or PERSIAN DWARF PROLIFIC** (*Præparturiens*). A dwarf variety of the above that begins to bear when quite young, and yields heavily.

**SIEBOLD'S JAPAN.** Of the finer imported Walnuts this is the species best adapted by its hardy, vigorous habit for general culture in our country. It grows with great vigor, assuming a handsome shape without pruning, and has withstood a temperature of 21° below zero without injury. Its nuts are considerably larger than the common hickory-nut, and borne in clusters of fifteen to twenty. The shell is a little thicker than that of the English Walnut, which it resembles in a general way; the kernels are meaty, delicate, and can be removed entire. The trees begin to bear when two or three years old.

**JAPAN CORDIFORMIS.** Differs from the above chiefly in the form of the nuts, which are broad, pointed and somewhat flattened. The kernels are large, sweet and easily removed from the shell.

**WHITE, or BUTTERNUT.** The nuts are large, long, oily and nutritious. The lofty, spreading tree is one of our finest natives, valued for its tropical appearance and beautiful wood, as well as for its nuts.

# Vines and Bush Fruits

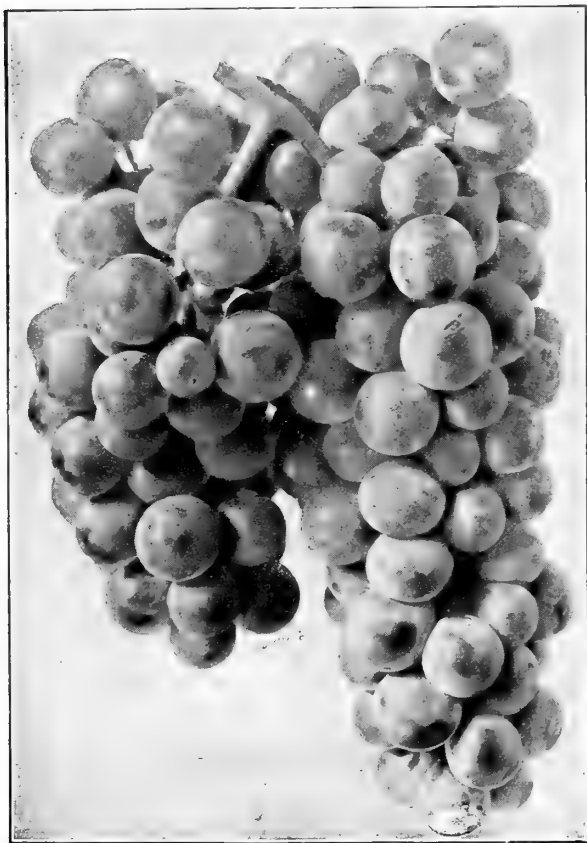
## HARDY GRAPE-VINES

Even under unfavorable conditions the grape-vine will bear fruit, but good culture, pruning and spraying repay the planter well, if the best quality of fruit is desired. No part of the fruit garden yields a richer harvest than the vineyard. Along almost any garden fence or walk there is room for vines enough to furnish luscious grapes from July until November. In such situations they may be planted about 8 feet apart. In vineyard rows set the vines 6 to 10 feet apart, with 6 feet of space between the rows. Paper bags slipped over the clusters as soon as they have formed are a good protection from fungus, insects, birds, etc.

### BLACK, or PURPLE VARIETIES

**CAMPBELL'S EARLY.** This superb new Grape is fulfilling the promises made for it remarkably well. It forms large and handsome clusters thickly set with large round berries, covered with a light purple bloom; these are firm-fleshed enough to keep and ship admirably, but the tender pulp parts readily from the few small seeds, a quality that is now greatly appreciated; the flavor is rich, sweet and delightful. The clusters ripen very early and hold their berries well, keeping in fine condition for a month or more. The vine is vigorous and bears abundantly. Should be widely planted.

**CHAMPION.** Valuable where the seasons are short, chiefly for its earliness. Of medium size in Grape and cluster; skin thick, quality poor.



Campbell's Early

**CONCORD.** The fine old market leader, with large, handsome clusters of large, luscious Grapes. Entirely hardy, productive and reliable; succeeds well over a great extent of country. One of the best known Grapes grown. September.

**EARLY OHIO.** A profitable early market Grape, with excellent shipping qualities; has strong, thrifty, hardy vines.

**EATON.** So large in both cluster and berry as to be very showy. Its clusters sometimes weigh thirty ounces and its berries measure an inch in diameter. They are round, thick-skinned, covered with a fine purple bloom, very juicy, with some pulp.

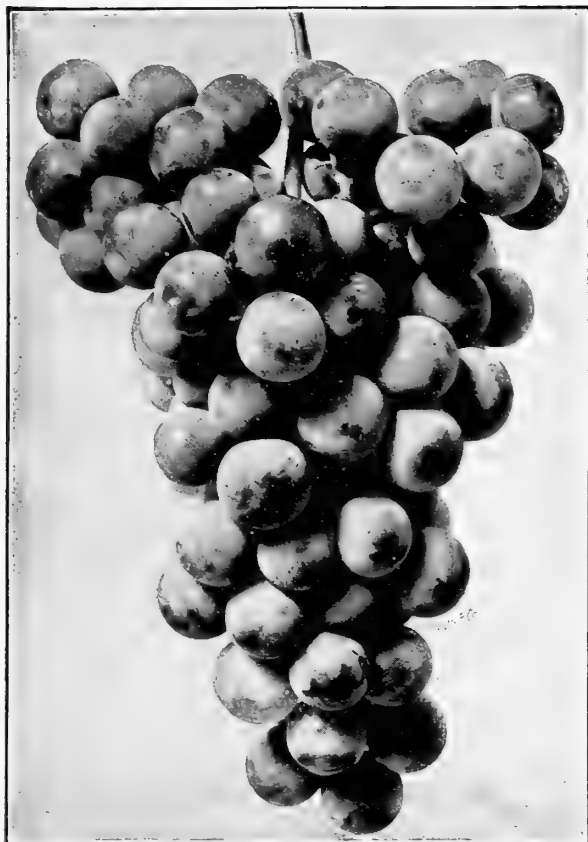
**IVES.** Clusters and berries are of medium size, dark purple; sweet and pulpy, with some foxiness; should hang on the vine a while after coloring.

**McPIKE.** This mammoth black Grape has been exhibited in all parts of the country, its great size, fine flavor, and beauty creating quite a sensation. It is a seedling of Worden and has many of the good qualities of both Worden and Concord. The bunches are large, even and compact; the berries sometimes 3 inches in circumference, covered with a rich bloom; they are of delightful consistency and quality, ripening evenly and keeping well when shipped long distances. The vine is very strong and thrifty in growth, with great, leathery leaves. Ripens before Concord.

**MERRIMAC.** Large in bunch and berry; rich and sweet. Vine vigorous and fruitful. One of the earliest sorts.

**MOORE'S EARLY.** Clusters of medium size; berries large, round, black, with heavy blue bloom. Desirable for market on account of its earliness; well suited to Canada and northern portions of the United States by its hardiness; succeeds admirably in the South also.

**WILDER.** Clusters very large, compact, shouldered; berries very large, round, with sweet, tender, sprightly flesh. A vigorous, productive sort that ripens with Concord.



Lindley

**BLACK, or PURPLE GRAPES, continued**

**WORDEN.** This seedling of Concord is larger than the type in bunch and berry, of better flavor, earlier, as hardy and healthy in every way, producing fine crops that command good prices. A very superior Grape that deserves to be a market leader.

**RED, or AMBER VARIETIES**

**AGAWAM.** Berries quite large, with thick skin, compactly set upon a large bunch; soft, sweet and sprightly; ripens early. Grows and bears well.

**BRIGHTON.** Bunches large and well formed; berries medium to large, of good flavor and quality. An excellent early Grape, ripening with Delaware.

**CATAWBA.** This excellent table and wine Grape has large, round berries, rather loosely set on clusters of good size; when fully ripe they are a dark copper-color, with a sweet, rich, musky flavor. Requires a long season.

**DELAWARE.** A choice native Grape of free and hardy but slender growth, that deserves a place in every vineyard or garden. Bunches and berries are small but compactly set, light red, with violet bloom; sugary and delicious. A favorite dessert Grape; one of the earliest to ripen.

**LINDLEY.** Of fine color and quality, with bunches and berries of medium size, borne in good

crops on a vigorous, healthy vine. One of the best red Grapes. Ripens with Concord and keeps as well.

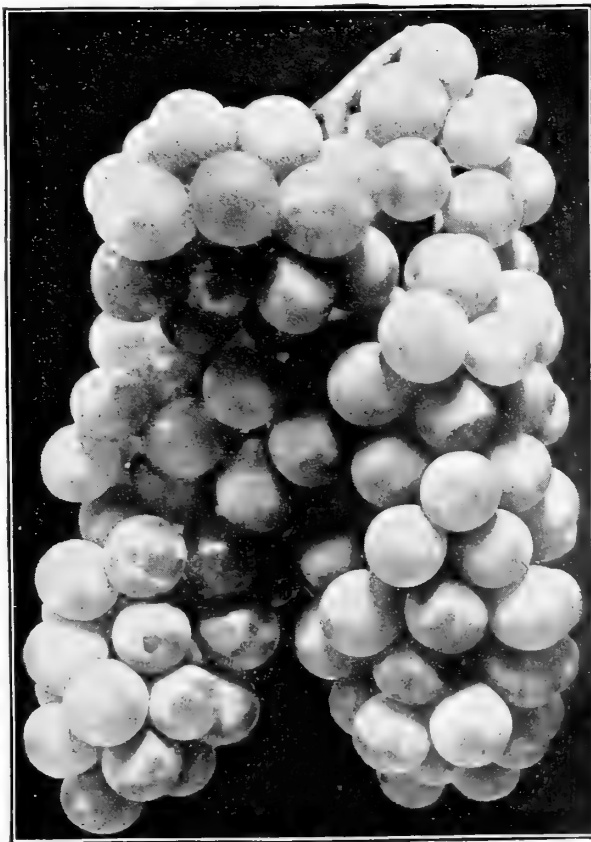
**MASSASOIT.** Bunches of medium size, loosely set with medium-sized brownish red berries of delightful flavor. Ripens very early.

**SALEM.** Bunches and berries large, coppery red; flesh tender, juicy, with slight pulp, of the very best quality; vine vigorous and fruitful. Ripens with Concord.

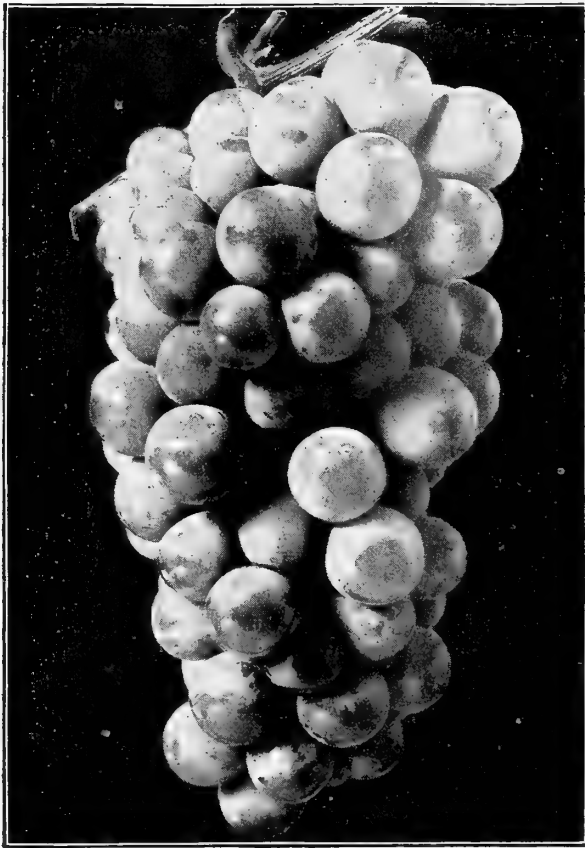
**VERGENNES.** Berries large, round, somewhat loosely set on bunches of medium size; skin thick and tough, making it a good keeping sort; flesh quite pulpy and of pleasant flavor. Ripens with Concord.

**WOODRUFF.** A handsome and profitable market Grape, with large, light red clusters and berries of good quality. Ripens early, with Delaware, keeps long and ships well. The vine is an ironclad in hardiness, makes a healthy, vigorous growth and bears good crops. Best red market Grape for main crop.

**WYOMING.** One of the most beautiful of the red or amber Grapes, brighter colored than Delaware, earlier, nearly twice as large; flesh tender, juicy, sweet, with a strong, native aroma. The vine is hardy and healthy, with thick, leathery foliage. The best of the red Grapes for early market.



Diamond (See page 32)



Niagara

## WHITE VARIETIES

**DIAMOND.** This handsome and valuable new Grape is a seedling of Concord, has the same sturdy qualities of vine, and ripens its fruit several weeks earlier. Its berries are about the same size, smooth, with no brown dots and few seeds; they are juicy, sweet and almost free from pulp. One of the best of recent introductions.

**EMPIRE STATE.** Very large bunches composed of medium-sized berries; juicy, rich, sweet and sprightly. Holds its color and flavor a long time.

**GREEN MOUNTAIN (Winchell).** The earliest of the white Grapes and also one of the most valuable, combining hardiness, fruitfulness, good size and excellent quality. Both berry and cluster are of good size; the flavor is as fine as that of any Grape in cultivation. Its earliness ensures its ripening, even in the worst of seasons. It is ready for use about the same time as Champion, a week before Hartford.

**LADY.** Berries medium to large, in medium-sized bunches; skin thin; pulp tender, sweet and pleasant, ripening early. Vine hardy and vigorous.

**MARTHA.** Of medium size in bunch and berry; flesh somewhat pulpy, a little foxy, but good. Hardy and productive. Earlier than Concord.

**NIAGARA.** Home and market growers seem to agree that this is the most valuable of all the white Grapes. Its clusters are large and handsome, compactly filled with large berries having a thin but tough skin. When fully ripe they are a fine pale yellow, with a thin white bloom, and the foxy aroma of an earlier stage has almost disappeared; the flesh is slightly pulpy, tender, sweet and delightful. The vine is remarkably vigorous and productive. Ripens with Concord.

**POCKLINGTON.** Clusters and berries large, light golden yellow when fully ripe; sweet and tender, with little pulp. Thoroughly hardy and healthy; bears well in favorable seasons and locations. Ripens after Concord.

## CURRANT BUSHES

Currants are perfectly hardy and may be planted in fall or spring. They succeed best on cool, moist soils, well tilled and well enriched. In warm climates a northern exposure suits them best. Plant the bushes about 4 feet apart and cultivate well, or mulch heavily, sprinkling ashes around the roots occasionally to keep out borers. If the Currant worm appears, dust with hellebore. Prune out the old wood that has ceased bearing.

**BLACK CHAMPION.** Produces large crops of excellent fruit.

**BLACK VICTORIA.** A new English variety of exceptional merit; the largest black Currant in cultivation. Makes a neat, strong bush of unfailing productiveness. The berries are of extraordinary size and of good flavor.

**COMET.** The English introducers say of this Currant: "The clusters are frequently 8 inches in length, with twenty or more berries of enormous size and brilliant crimson color. The juice is without acidity and particularly refreshing, so that this

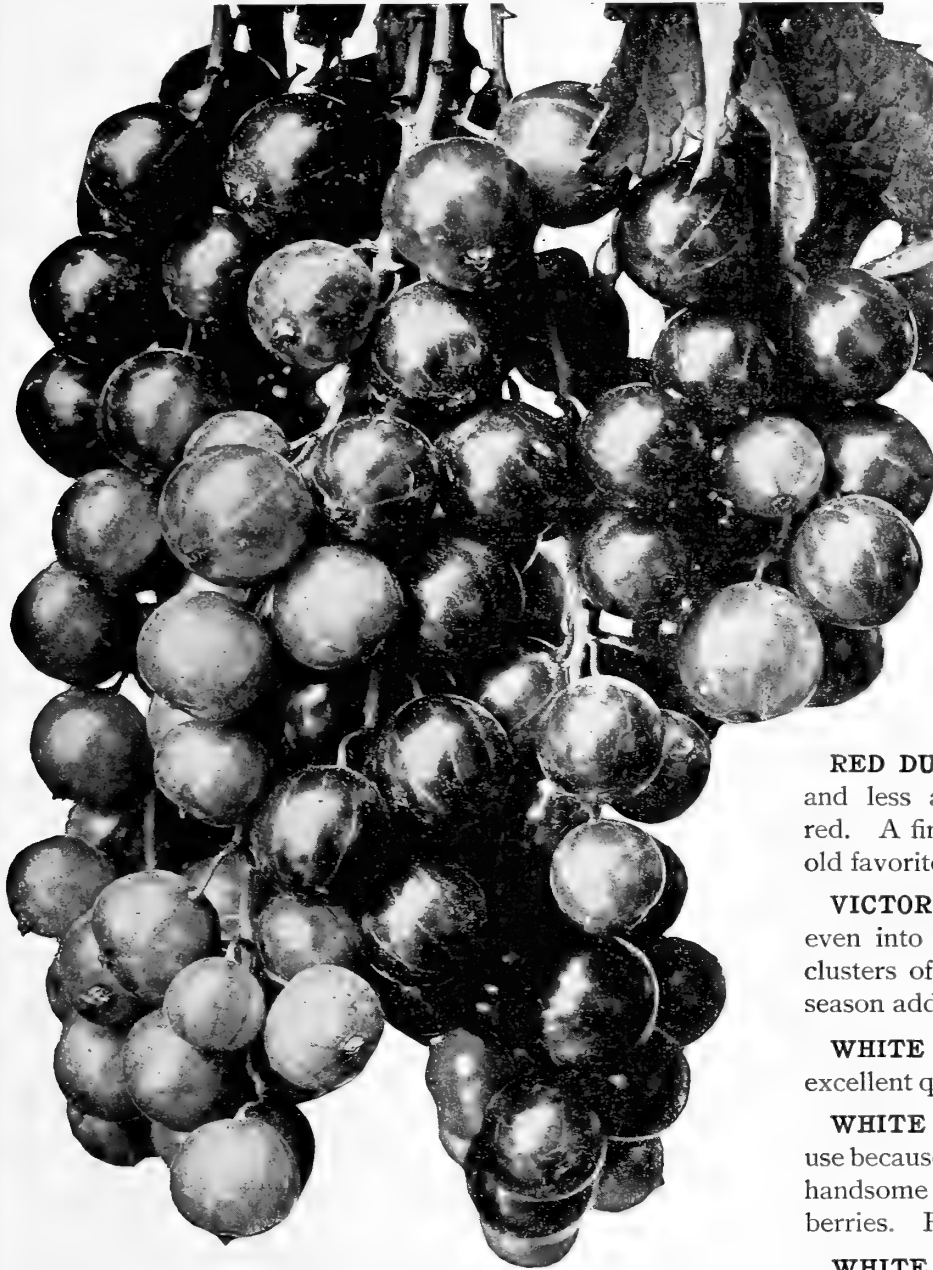
is likely to become a valuable fruit for dessert purposes. It will hang a long time in good condition; the first picking has been made June 10, the last as late as August 22. The growth is wonderfully vigorous."

**CHERRY.** Very large berries on short clusters; a robust, fruitful sort.

**FAY'S PROLIFIC.** The leading market Currant. Rich red berries, as large as those of the Cherry Currant, of better flavor, less acid, long-stemmed and easily picked. Five times as prolific as Cherry. The demand usually exceeds the supply.



**LA VERSAILLAISE.** A French sort, with large, long red clusters of great beauty. A fine old sort of extra productiveness.



Perfection Currant

**LEE'S PROLIFIC.** A superior English sort, with large black fruits of good flavor; the bush is robust and enormously productive.

**POMONA.** Deserves prominence for its splendid market qualities. The fruit is of good size and flavor, bright red, long-stemmed, hangs in fine condition long after ripening, ships and markets well. The bushes bear early and have an unparalleled record for actual acreage yield.

**PERFECTION CURRANT.** The latest introduction, created by crossing Fay's Prolific with White Grape, and combines the best qualities of both parents. In color it is a beautiful bright red and of a size larger than the Fay; the clusters average longer and the size of the berries is maintained to the end of the bunch. It is one of the most productive Currants we have ever known, and in quality it is superior to anything in the market today, being of a rich, mild, subacid flavor and having plenty of pulp with few seeds. It was awarded the Barry Medal of the Western New York Hor. Soc. in 1901, and the Pan-American Medal the same year—the highest award given any new fruit. The plants are limited in number, and orders will be booked in the order in which they are received. All plants will be sent out under the introducer's seal.

**RED DUTCH.** Has clusters much larger and less acid than those of the ordinary red. A fine, fruitful old sort, and one of the old favorites for home use or market.

**VICTORIA.** Erect-growing, heavily laden even into September, with long, handsome clusters of large, bright red fruits. Its late season adds greatly to its value.

**WHITE DUTCH.** Of medium size and excellent quality. Well known.

**WHITE GRAPE.** Excellent for dessert use because of its mildly acid flavor and large, handsome clusters of golden green or white berries. Fruitful.

**WHITE IMPERIAL.** Mildly acid and pleasant-flavored, clusters larger and longer-stemmed than those of White Grape; the richest and best of Currants for dessert use. Productive.

**WILDER.** A new red Currant, with large, fine-flavored fruit of a bright, attractive red color, even when overripe. In some trials it has outyielded the Fay Currant; is as large, with longer bunch, less acid, ripens at the same time and hangs longer. Few varieties equal it in the two essential qualities of productiveness and long-keeping.

## IMPROVED DWARF JUNE BERRY

Like the oleaster, this belongs to both ornamental and fruit gardens. Its large white flowers and dark shining leaves make quite a pretty little bush that sturdily endures heat, drought and cold. Its clusters of purplish fruits resemble whortleberries and are pleasantly acid. They are quite acceptable either for dessert or canning and preserving.

# GOOSEBERRIES

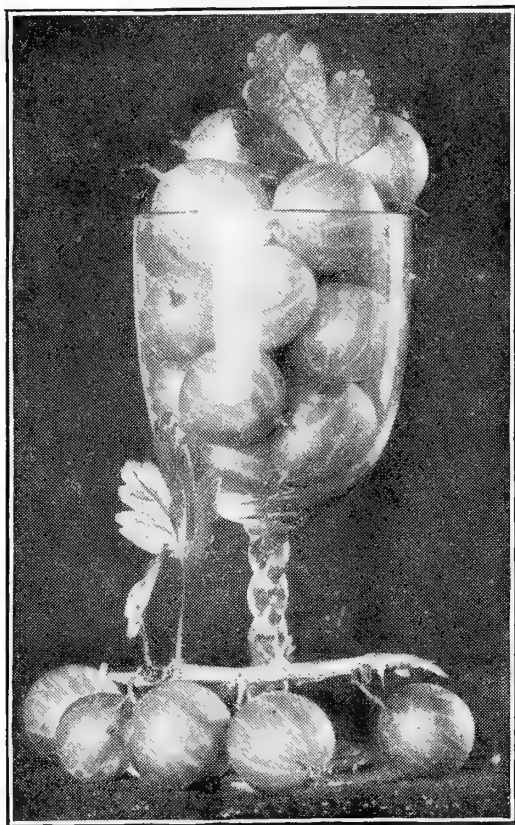
The Gooseberry and currant are two of the hardiest types of bush fruits. Our native forms range far north into British America. Seedlings of these natives are also very hardy, as is shown by some of the choice hybrids with European sorts. All Gooseberries like a cool, moist loam and either partial shade or a good mulch through summer. A good top-dressing every year is also necessary.

## AMERICAN VARIETIES

These are characterized by extra hardiness, vigor and freedom from mildew, enabling them to succeed well where the larger-fruited and tenderer English sorts succumb to disease. Prune closely every spring.

**CHAUTAUQUA.** Fruits large, light yellow, with smooth, thick skin; quality excellent. Bush vigorous, fruitful. One of the best sorts when sprayed.

**COLUMBUS.** Berries of the largest size, pale yellow, of finest flavor. Bush strong and free from mildew. A near approach to the ideal Gooseberry that shall equal English sorts in size and beauty of fruit, while meeting in habit of bush all requirements of our less favorable climate.



Columbus

**DOWNING.** A large and handsome pale green berry of splendid quality for dessert or cooking. The bush is robust and seldom mildews. An excellent sort for family use and quite profitable for market.

**HOUGHTON.** An enormously productive and always reliable old sort; of vigorous yet rather slender, spreading growth, not subject to mildew. Fruits of medium size, smooth, pale red; tender and good.

**JOSSELYN.** This American seedling has been widely tested among leading older varieties and, so far, is less subject to mildew of leaf and fruit than any of them. The fruit is large, smooth, of good flavor; the bush very hardy, with clean, healthy foliage, and bears fine crops of bright red fruit. The one large Gooseberry that can be planted with entire confidence.

**PEARL.** Similar to Downing, but with fruits a little larger; it is also even more robust and fruitful in habit.

**SMITH'S.** Large, pale yellow, thin-skinned; of excellent quality for dessert or cooking. Bush moderately vigorous and exceedingly fruitful. Where conditions are favorable, a valuable sort.

## ENGLISH VARIETIES

The English Gooseberries require but little pruning. Their fruits are larger and showier than American sorts, their bushes tenderer and more subject to mildew. Given cool, moist situations in partial shade, rich soil and heavy mulches, they yield fine crops of beautiful fruit.

**CROWN BOB.** Large, round-ovate, red, hairy fruits, of the first quality.

**INDUSTRY.** Fruits large, oval, dark red, hairy; beautiful and of best quality. Less subject to mildew than other foreign kinds and perhaps the best of them for our climate. Where left long, the strong, upright canes are full of fruit to their very tips.

**KEEPSAKE.** The blossoms of this variety are well protected by foliage, so that it is sure to set good crops in any ordinary season. The berries are very large, pale yellow, of good flavor and ship well. Quite productive.

**LANCASHIRE LAD.** Fruits smooth, bright red, of unusual size and beauty and of fine dessert quality. The bush is strong and fruitful. Among the best and largest of English varieties and very valuable for market.

All of our stock is true to name, and is correctly labeled.



Haymaker raspberries

## RASPBERRIES

All except the blackcap Raspberries may be planted either in the spring or fall, 3 feet apart, in rows 5 to 7 feet apart. To keep the rows in good bearing condition old wood must be cut away as soon as it has fruited, to give vigor to the young canes. Thin the suckers every spring to five or six of the strongest in each hill, keep free from weeds and top-dress with some good fertilizer. Blackcaps can be planted only in the spring. Pinch back blackcaps early, or when the young canes are about two feet high, to keep the bushes snug and compact, and to obviate staking. Clean mellow culture is beneficial to both varieties of Raspberries, and mulching, both in summer and winter is of decided benefit to them.

**BLACK DIAMOND.** Berries large, very sweet and pulpy, yet fine for shipping and evaporating. Canes strong and fruitful. Early.

**COLUMBIAN.** This variety ranks very near the top for amazing productiveness, vigor and the quality of its very large, dark red fruits. It is an improvement on Shaffer in color and firmness of berry, while retaining its delicious flavor. The bush is very hardy and grows to such great size that it requires extra room. Unexcelled for market and all culinary uses.

**CUTHBERT** (Queen of the Market). This superb old variety endures northern winters or southern summers with equal vigor, and produces fine crops of large, conical, deep red fruits even in the cotton belt, where so many other sorts fail. Its berries are sweet, rich, high-flavored, as beautiful as strawberries, and so firm that they are shipped hundreds of miles in good condition. Certainly one of the finest market berries. Season medium to late.

**CUMBERLAND.** A mammoth midseason blackcap that loads its stout, stocky canes with handsome fruit. Its great glossy berries outsell all

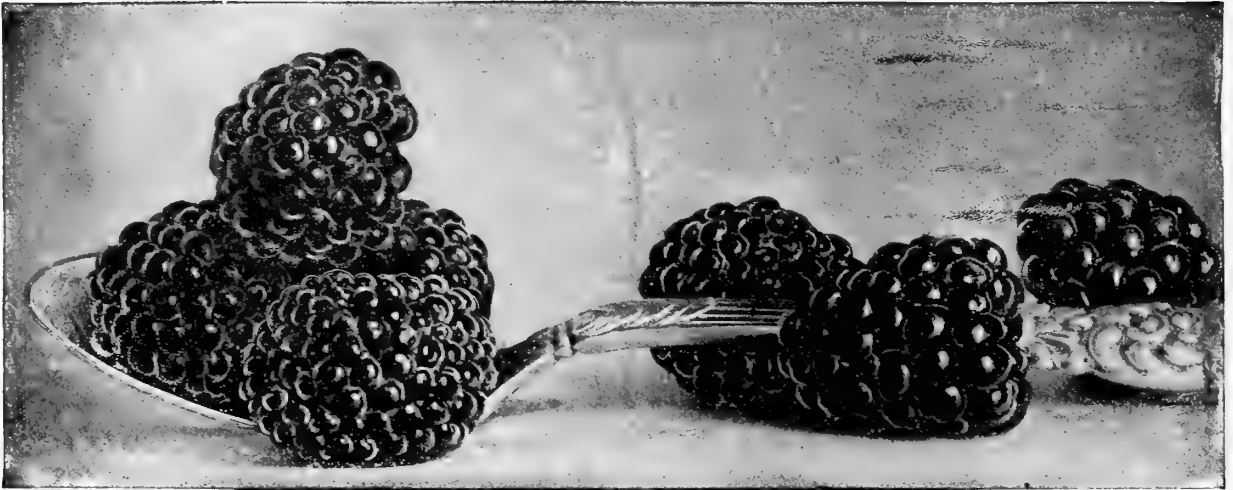
others of their season, are firm enough to ship well, and of good quality. In hardiness and productiveness, among the best.

**EUREKA.** A valuable very early blackcap, with large, firm, glossy black fruits that always bring a high market price. Hardy and robust, and stands first for productiveness in some localities.

**GOLDEN QUEEN.** Large, beautiful fruits of a pale amber color; firm and delicious. The canes are hardy, of strongest growth and wonderfully productive. A very superior dessert fruit. Succeeds in all sections.

**GREGG.** For many years the leading blackcap for market. Its large, showy berries are produced in great abundance, are firm, and ship finely. Midseason.

**HAYMAKER.** We recommend this new Raspberry as the most productive in cultivation. It is an Ohio seedling of the tall, strong-growing Columbian type, with berries similar in color, size and texture, but a little more acid, and produced in even heavier crops. The one great Raspberry for market growers.



Cumberland Raspberries, as compared with Snyder Blackberries

#### RASPBERRIES, continued

**KANSAS.** A valuable second-early blackcap, so strong and hardy as to endure extremes of cold and drought and yet bear heavy crops. The ber-



Kansas Raspberries

ries are large, showy, firm, of best quality, selling for the best prices. One of the best on our grounds.

**KING.** Several of our best fruit-growers consider this the best of the early red Raspberries. It has large and attractive bright red fruits of good flavor, ripening with the earliest and firm enough to ship nicely. In hardiness, growth and productiveness all that could be desired.

**LOUDON.** This variety is a marvel of productiveness and hardy to the tips of its shoots. Its large and beautiful rich dark crimson fruits are of good flavor, ship better and hang longer after ripening than those of any other variety. The best red midseason berry.

**MARLBORO.** A profitable early market berry, with large, light crimson fruits of good quality and firmness. Very hardy and well suited to the North.

**PALMER.** This blackcap is the first Raspberry to ripen, yet its berries are of good size and flavor. The canes are wonderfully fruitful and quite hardy. Being so early, it always commands good prices in market.

**WINEBERRY.** This Japanese Raspberry has large clusters of deep red fruits of a pleasant acid flavor. Each berry has a large, mossy calyx that gradually opens and exposes the fruit when ripe. Canes and stems are also covered with red hairs. Very vigorous and hardy.

### THE LOGANBERRY

In California, where it originated, this Raspberry-blackberry hybrid is highly praised; in the East it is disappointing. The long, bright red fruits are attractive, and have the wild blackberry flavor. The plant is trailing, not very productive and tender in the North and Northeast.

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Our small fruit bushes and plants have always had the reputation of being the best of their respective classes, and it is our constant aim to keep them up to it



## BLACKBERRIES

For garden culture, plant 4 feet apart in rows 5 feet apart; for field culture, plant 3 feet apart in rows 6 feet apart. Pinch back canes when 3 or 4 feet high, and allow but three canes to the hill. Give about the same treatment as raspberries.

**AGAWAM.** Of medium size, sweet, melting, early to ripen. Hardy, prolific.

**ANCIENT BRITON.** Well adapted by its great hardiness for planting in all sections subject to severe winters. The strong, healthy canes are heavily laden with sweet, melting berries of medium size. Markets well.

**EARLY HARVEST.** Dwarf, very early, quite productive of sweet, medium-sized berries. Needs protection in the North.

**ELDORADO.** The vines are very hardy and vigorous, enduring the winters of the far Northwest without injury, and their yield is enormous. The berries are large, jet black, borne in large clusters and ripen well together; they are very sweet, melting, have no hard core and keep for eight or ten days after picking with quality unimpaired. Perhaps the most valuable sort in cultivation.

**ERIE.** Berries large and nearly round, appearing thus even larger than they really are; of good quality. The canes are strong, with healthy foliage, hardy, free from rust, supporting heavy crops of fruit. Ripens between Early Harvest and Wilson.

**KITTATINNY.** Large, fine berries of good quality; canes strong, erect, fruitful.

**MINNEWASKI.** Berries large, juicy, sweet. Remarkably productive and hardy. Ripens early.

**OHMER.** As large as the largest, of best quality, as hardy as any good berry and very productive. A valuable late market sort.

**RATHBUN.** Of very large size, resembling Wilson, and fully its equal, adding ironclad hardiness to its good qualities. The berries are sweet, luscious, have no core, and are firm enough to ship



**Eldorado Blackberries**

and handle well. The canes make a strong, erect growth, yielding fine crops.

**SNYDER.** Berries of medium size, sweet, melting. Very hardy and wonderfully productive. Leads where hardiness is a consideration. Early.

**TAYLOR.** A good succession for Snyder in cold climates. Ripens its large, luscious berries some weeks later. Vigorous, hardy, fruitful.

**WACHUSETT.** Berries of medium size, sweet and good; keeps and ships well. Very hardy, with fewer thorns than most sorts.

**WILSON.** A very superior, large early berry, of sweet and excellent quality. Strong-growing, amazingly fruitful, very early to ripen.

## THE LUCRETIA DEWBERRY

In size and quality this low-growing or trailing blackberry equals any of the upright sorts. Its berries ripen before raspberries are gone, are large, soft, sweet and luscious throughout, with no hard core. The vine is perfectly hardy, healthy and exceedingly fruitful, with large, showy blossoms. May be grown over walls, trellises or rocky slopes where there is no room for the other berries.



# STRAWBERRIES

In ten or twelve months after planting, Strawberries may be depended upon to give fair returns in delicious fruit. They can be made a success on almost any soil that is well fertilized and well cultivated. Early spring is the best time for planting. Set the plants 12 to 18 inches apart, in rows  $2\frac{1}{2}$  to 4 feet apart, according to soil conditions and the variety of plants. At the end of the season they will form narrow matted rows, with plants 5 to 8 inches apart. This will give more and better berries than thickly matted rows where all the runners are allowed to root. A mulch of leaves or straw applied after the ground freezes in winter will be beneficial. Before growth starts in spring, remove the mulch to the edges of the rows and it will help to keep the fruit clean and the soil moist through the fruiting season.

The soil in our nurseries is well adapted to the development of strawberry plants, giving us fine crowns and root-clusters much larger than are usually sent out. Our stocks are cultivated entirely for the production of plants, are kept pure, carefully graded, handled and packed.

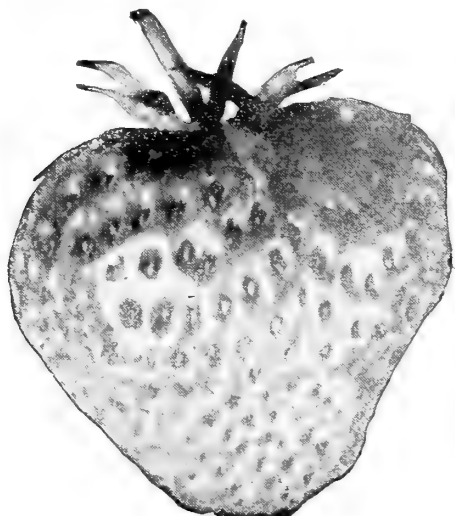
Varieties marked with a star (\*) are pistillate or imperfect-flowering. When staminate or perfect-flowering sorts are planted near them they are often the heaviest bearers of all, but unless these varieties are near enough to furnish pollen they will not yield much fruit. All unstarred sorts are perfect-flowering.

**BRANDYWINE.** One of the very reliable fruiting sorts that can be depended on for heavy crops on a variety of soils. Berries very large, broadly heart-shaped, bright red to the center; firm-fleshed and finely flavored. A valuable late berry.

**\*BUBACH.** A sterling old sort that combines many excellent qualities: great and uniform size, rich color and quality, extraordinary vigor and fruitfulness, fine foliage that endures the hottest suns. Season early to medium.

**\*CRESCENT.** Berries of medium size, rather acid. An extra-vigorous and prolific old variety.

**GANDY.** Large and firm berries, of uniform size and shape. On heavy, rich loams the plant is a marvel of vigor and fruitfulness. The best shipping, long-keeping Strawberry, as late as the latest of well-tested sorts.



Haverland

**GLEN MARY.** Large to very large, sometimes flattened; sweet, rich, delightful. Plants vigorous, extra-fruitful of fine berries that hold their size to the end of the season.

**HAVERLAND.** Very productive of medium to large, conical berries that are smooth, regular,



Nick Ohmer

mildly subacid. Pollinated with some highly productive perfect-flowering sort, it yields enormous crops of superb berries. Early and one of the most valuable market sorts.

**JESSIE.** Berries large, handsome, dark red. The plant is vigorous, healthy, with strongly staminate blooms; a good pollenizer for imperfect-flowered sorts.

**MARSHALL.** Berries very large, handsome, high-colored; of extra quality. With high culture the strong, healthy plants produce great crops. Early.

**McKINLEY.** Large, firm, crimson berries of good flavor. Plant vigorous, healthy, productive. Midseason to late.

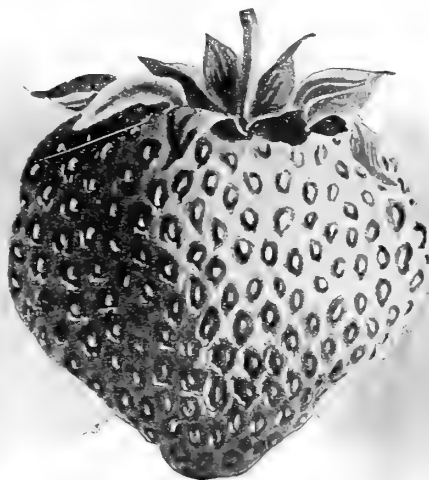
**NICK OHMER.** A fine, fancy market berry and always superb for the table. A giant in size; it is yet deep red all through, globular, high-flavored, delicious. In healthy vigor and fruitfulness unsurpassed by any other sort.

**PALMER.** A new first-early sort that promises to lead the market. Its berries ripen before those of Excelsior or Johnson's Early, are long-conical, dark red, and of delicate, delicious quality. It leads in productiveness also, outyielding all other berries of its season.

**\*SAMPLE.** A strong plant that succeeds well on nearly all soils and yields astonishing crops of uniformly large, fine berries, pointed, conical, rich scarlet, firm and of fair quality. A money-maker for the market-man and destined to become one of the standard sorts for all sections. It is being planted in immense quantities.

**\*WARFIELD.** Great beauty, firmness, earliness, productiveness and vigor make this berry most popular. Ripens with Crescent and is superseding it for canning, distant shipments and general marketing.

**WM. BELT.** Berries very large, conical, bright red, of good flavor. The plant is strong, healthy, very fruitful. Season medium to late.



Wm. Belt

## ASPARAGUS AND RHUBARB ROOTS

These first fruits of the garden are well appreciated everywhere, but the supply of them is usually inadequate. Borders and beds of the plants are common in many gardens; they are usually weedy and neglected. A better way to grow both family and market crops is to set the roots 15 to 18 inches apart in rows, so that horse and cultivator can do most of the work. Spread the roots of Asparagus out well, firm the soil about them and leave the crowns about 2 inches below the surface of the soil.

Cellar-grown Rhubarb, with beautifully pink, tender stalks two or more feet long, can be enjoyed in March by any one who will devote a little time to it; it also brings fancy prices in market, for the open-air crop is less tender and attractive, besides appearing six weeks later. For this crop the plants are grown from spring till fall in very rich soil, so as to establish a number of crowns on each root. In fall a number of roots are packed solidly together, with rich soil in the interstices, in some cool, dark cellar. After their crop has been cut the roots are replanted in the garden to regain vigor for the next year's forcing.

### ASPARAGUS

**COLUMBIAN MAMMOTH WHITE.** Produces numbers of great, thick white shoots. Most attractive and profitable for canning.

**CONOVER'S COLOSSAL.** Really colossal, deep green shoots, from 1 to 2 inches in diameter are sent up thickly from the crowns.

**GIANT ARGENTEUIL.** A new French variety that makes crowns strong enough for cutting before any other sort and yields enormous crops of mammoth, tender stalks.

**PALMETTO.** In great markets this Asparagus sells at top prices, on account of the great size and beautiful appearance of its stocks. Some years it is on the market ten days before other sorts.

### RHUBARB

**LINNÆUS.** Leaf-stalks large, tender, juicy, produced quite early.

**QUEEN.** The extra-large, tender stalks are a decided pink color, and delicious for canning or cooking. A very strong-growing sort.

## SEEDS

We keep in stock a very complete assortment of Vegetable and Flower Seeds, handling only fresh, tested stocks of high germinating power. A complete catalogue of these seeds is issued about January 1. Free to all planters.

Remember our firm and nursery names, "The Storrs & Harrison Co.," "Painesville Nurseries." We receive many complaints about goods sold as coming from "Lake Co. Nurseries," "Great Northern Nurseries," etc., Painesville, O. There are no such establishments.



# HARDY ORNAMENTAL TREES

*For Lawn and Landscape*

A LEADING SPECIALTY with us, from the founding of our nurseries, has been the cultivation of Hardy Ornamentals. Our soil and climate are particularly suited to their growth, our force of experienced and successful propagators, and our long experience in growing, handling and packing all stocks of this class give us confidence in our ability to suit the most critical buyers. We, doubtless, have more acres devoted to the production of hardy trees, shrubs, roses, perennials, vines, etc., than any other establishment in the United States.

New varieties are being constantly tested. We shall offer and recommend only such as are distinct and distinctly better than varieties already cultivated.

The uses of trees are manifold : To furnish the masses of foliage which frame and divide and partly make up the views of a landscape or lawn, to emphasize the elevations of the ground, to vary the sky-line, to screen unsightly objects, to enhance the beauty of buildings, to cool the atmosphere, and to furnish shade and shelter. The selection of trees should be in keeping with the natural and intended character of the landscape ; it is a great mistake to plant indiscriminately those which happen to be near or easy to procure. Among trees, as elsewhere, the need of variety must be emphasized. Dwarf trees and shrubs are best suited to small places ; in selecting them plan for a succession



Schwedler's Norway Maple (See page 41)

of bloom. To bridge over flowerless gaps, and to give contrast and continued brightness, there are trees with gaily colored foliage. Trees with beautiful bark or berries add much to the beauty of a place in winter. If these and the profuse, early spring-flowering trees are planted near evergreens, their beauty will be doubled by the fine background thus supplied. Further practical hints on planting will be found in the introductory pages.

## DECIDUOUS TREES OF UPRIGHT GROWTH

With the modern facilities for successfully transplanting large trees it is no longer necessary for new homes to seem bare and unattractive through a decade or score of years while their trees are growing. All who wish fine trees of specimen size are invited to correspond with us and to send their lists for our estimates.

### ACER. Maple

Trees of this group are hardy, vigorous, adaptable to many soils, free from diseases, easily transplanted, regular in outline and beautiful in leaf. Nearly all are brilliantly colored in fall, especially the North American species.

**A. dasycarpum.** *Silver Maple.* Of quicker growth than most trees, and valuable where immediate shade is required. Forms a large, spreading head; the fine leaves are silvery beneath.

**var. Wieri laciniatum.** *Wier's Cut-leaved Silver Maple.* A very beautiful specimen tree, with delicately cut leaves and distinct, half-drooping habit. The leader grows rapidly upright, the slender lateral branches curve gracefully downward. Of noble proportions when undisturbed, yet patient under considerable pruning.

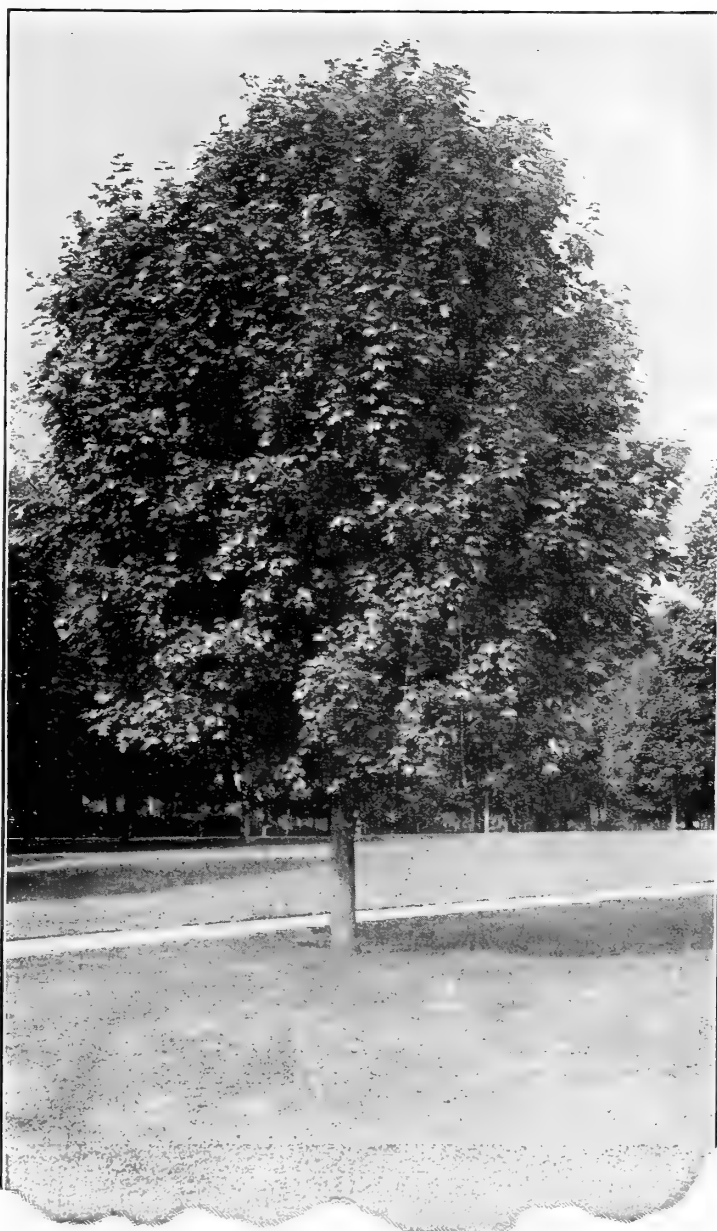
**A. Negundo.** *Ash-leaved Maple, Box Elder.* This species is easily distinguished by its pinnate leaves and greenish yellow bark. It grows rapidly into a large, spreading tree, found valuable for planting timber claims, shelter-belts, etc., in the West, where it endures both drought and cold. Some grand specimens may be seen along the Schuylkill, near Philadelphia.

**A. platanoides.** *Norway Maple.* A handsome tree, of large, fairly rapid growth, forming a dense, rounded head of strong branches and broad, deep green leaves. Sturdy, compact, vigorous, it is one of the very best trees for lawns, parks and gardens.

**var. Reitenbachii.** The rich, changing leaves of this tree are delicate green in spring, decidedly purple in summer, purplish scarlet in fall.

**var. Schwedleri.** The Purple Norway Maple's beautiful leaves attract attention at all seasons, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the delicate green of other trees. In midsummer they are purplish green, in autumn golden yellow.

**A. polymorphum.** *Japanese Maples.* These are the most delicately beautiful of small exotic trees. The more vigorous types, like *Atropurpureum*, *Dissectum* and *Ornatum*, are hardy even in New England; the variegated types are only variably hardy. In some varieties the leaves are exquisitely cut and bright-colored only in spring and fall; others are deep blood-red or golden



Norway Maple





Japanese Maple

## ACER POLYMORPHUM, continued

yellow all the season. Landscape gardeners use them in quantity for hardy permanent beds of color. Grown as little specimen lawn trees, or in pots for house and porch decoration, they are also charming. There is not a dwarf tree in cultivation which can compare with the Japanese Maple for grace and beauty. They grow best in partially shaded situations and in rich, well-drained soil. We can supply them in quantity and in great variety.

**A. Pseudo-platanus.** *European Sycamore Maple.*

A broad, handsome tree of medium size, with larger, darker leaves than other Maples. Casts a dense, cool shade.

**var. purpurascens** A purplish tone is imparted to the tree by the purple under-surface of its leaves; the effect is fine when the leaves are in motion.

**A. saccharum.** *Sugar, or Rock Maple.* This tree is chieftain of its clan, straight, spreading, symmetrical, of grand proportions, longer-lived than most men who plant it. It grows well in all except damp, soggy soils, and roots deeply, allowing the grass to grow close about its trunk. Its bold leaves have very rich autumn tints of clear yellow and scarlet. One of the finest and most generally useful of all our shade trees; makes grand avenues.

**A. Tataricum.** *Tartarian Maple.* A distinct and attractive dwarf tree of moderate growth, valuable for grouping. Scarlet in autumn.

**AESCULUS. Horse-Chestnut**

The Horse-Chestnuts have an elegant pyramidal habit, deeply lobed leaves and showy upright panicles of white or red flowers. They are hardy,

vigorous, free from insects, and among the first trees to unfold their leaves in spring.

**Æ. Hippocastanum.** *European White-flowered Horse-Chestnut.*

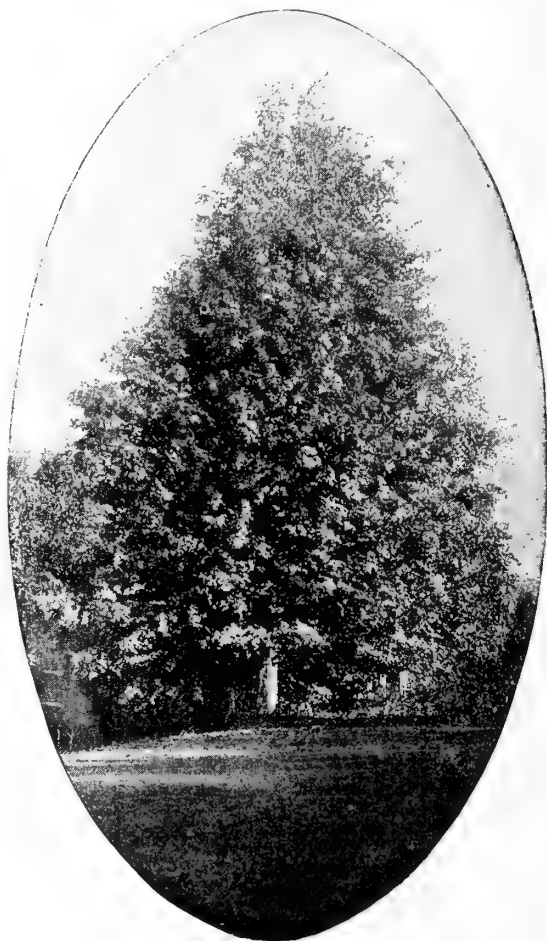
A large tree, of regular outline, spangled in May with great, upright spikes of white and red flowers. Has no superior as a specimen flowering tree.

**var. rubicunda.** *Red-flowering Horse-Chestnut.* A somewhat smaller tree with darker leaves and splendid showy red flower-spikes opened a little later.

Fine for contrasting with the white-flowered. One of the finest trees in cultivation.

**var. alba flore pleno.** *Double-flowering Horse-Chestnut.* A superb variety, with large panicles of double flowers, like hyacinth trusses in effect. Has no nuts to litter the lawn.

For Dwarf Horse-Chestnut, see Pavia, among shrubs.



Sugar, or Rock Maple



**AILANTHUS**

Chinese Sumach, Tree of Heaven

- A. glandulosa.** An extremely quick-growing tree; tall and tropical-looking, with pinnate, palm-like leaves. Valuable because it thrives in smoky cities and in soils where other trees perish. Only fertile trees should be planted, as the pollen from infertile sorts is disagreeable.

**ALNUS. Alder**

Of quick growth in dry or damp soils; especially useful for planting in soggy situations where other trees will not grow. Medium-sized, pyramidal trees, with dark foliage.

- A. glutinosa.** *European, or Common Alder.* Foliage roundish, wedge-shaped, wavy. Remarkably quick in growth; 30 to 60 feet high.
- A. laciniata imperialis.** *Imperial Cut-leaved Alder.* Of stately, graceful habit, with large and deep-cut foliage. Vigorous and perfectly hardy. A grand lawn tree.

**AMELANCHIER. Mespilus**

- A. Botryapium.** Also known as Juneberry, Service Tree and Shadblow. Of graceful, slender, fastigate form, white in April with a thick cloud of drooping snowy flowers that render it very conspicuous among bare, leafless trees. Its small purplish fruits are edible in June.

**ARALIA. Angelica Tree**

These are very distinguished small trees, with large, finely divided foliage and showy heads of cream-white flowers. They are quite useful in subtropical gardening or for forming showy, odd-looking clumps anywhere. Give a slight protection of straw or evergreen boughs in winter.

- A. Japonica.** A distinct and handsome Japanese species, of spreading growth. Foliage immense and finely divided, stems spiny, flowers in great white spikes in July producing a most beautiful effect.
- A. Maximowiczii.** The great palmate, 5-to-7-lobed leaves are richest, deepest green and very striking.
- A. spinosa.** *Hercules' Club.* A showy native, with broad, handsomely cut leaves and huge clusters of small white flowers in July. Its winter effect is unique and handsome.

**ASIMINA. Papaw, Custard Apple**

- A. triloba.** Well worth a place in the garden for its large, handsome foliage and attractive early flowers. Distinctly novel in appearance, and effective on the lawn. Its fruit is large, oblong, yellow, pulpy, highly aromatic, and much relished by some people.



**European White-flowered Horse-Chestnut**  
See opposite page

**BETULA. Birch**

The trees of this group are distinguished by their graceful elegance of habit, light bark, slender branches and airy foliage. They flourish in cold climates and in poor soils, are handsome and hardy anywhere. Leaves are orange-yellow in fall.

- B. alba.** *European White Birch.* This is the famous Birch of literature. Quite erect when young, its branches begin to droop gracefully with age. Its bark is snow-white, and very effective in landscape views.



European White Birch. (See page 43)

**BETULA alba, var. atropurpurea.** A beautiful tree of the same general character as the White Birch, but with rich purple foliage. Fine for contrasts.

**var. fastigiata.** *Pyramidal Birch.* Almost as useful in landscape work as the Lombardy Poplar. Of tall, columnar habit and very beautiful and effective.

**B. lenta.** *Black, or Cherry Birch.* A large and handsome native species, with fine-grained, valuable wood.

**B. lutea.** A medium-sized native tree, with fine leaves and yellowish gray bark.

**B. nigra.** Our graceful River, or Red Birch. Distinctly ornamental.

**B. papyr fera.** *Paper, or Canoe Birch.* The brilliant white bark of this species is wonderfully effective, particularly in winter and when planted against evergreens. A large, vigorous, upright tree, with broad, handsome leaves.

**CARYA** (Shell-bark). See Nut Trees

**CASTANEA** (Chestnut). See Nut Trees

## CATALPA. Indian Bean

A highly ornamental group, with large, cordate, bright green leaves and showy clusters of large purple and white flowers in July, when few other trees are blooming. They grow fast and bloom when quite young. The long beans of some species are odd and attractive.

**C. Bungei.** *Chinese Catalpa.* A curious dwarf form that grows only 3 or 4 feet high and twice as broad. It is very useful in formal work when grafted on stems 5 to 8 feet high, forming a pretty, dome-shaped head of great, soft, heavy leaves. The flowers are borne in large clusters a foot long; the leaves are laid with shingle-like precision. Hardy, strong-growing, unique. Besides the tall form, we can supply specimens worked low, forming handsome dwarf specimens.

**C. bignonoides, var. aurea.** The large, heart-shaped leaves are a rich yellow in spring and early summer, producing beautiful effects when contrasted with plain and purple-leaved trees.

**var. argentea.** Leaves blotched and variegated with white. Can be used in contrasts or pruned back for subtropical bedding.

**C. hybrida.** *Teas' Japan Hybrid Catalpa.* Particularly valuable for its unusually quick growth, extreme hardiness, and the beauty and fragrance of its flowers. A large tree is a magnificent sight when in full bloom.

**C. speciosa.** *Western Catalpa.* A fine hardy sort, well adapted for forest and ornamental planting. The coarse-grained, soft wood is very durable and useful for railroad ties, fence-posts, etc. Blooms earlier than the others.



Catalpa Bungei

**CELTIS. Nettle Tree**

**C. occidentalis.** A rare native tree that deserves much more general planting. Its light green leaves are glossy, pointed, almost entirely free from insects; the branches spread horizontally, forming a wide, elm-shaped head of medium size. Vigorous, hardy, healthy, thriving in all soils.

**CERASUS. Cherry**

These small, thrifty, hardy flowering trees are not sufficiently appreciated outside the "land of cherry blossoms." In their blooming season each tree is a perfect mass of daintily formed flowers, that in the weeping varieties sweep the grass in long wreaths.

**C. avium, var. alba flore pleno.** *Double White-flowering Cherry.* A charming small tree, with branches completely hidden by a mass of large, double white flowers in May.

**C. Japonica.** The famous ornamental cherry of Japan, where it is cultivated in many forms, some of them full double. One of the handsomest flowering specimen trees in cultivation. Our trees are all top-grafted on tall stems that allow the bloom-wreathed branches space to form an exquisite drooping crown.

**C. pumila, var. Rhexi fl. pl.** The white, double flowers of this pretty dwarf are rose-like in size and delicate regularity of petals. At blooming time it is a white drift of them.

☞ For other varieties, consult Pendulous Trees.



**Catalpa speciosa.** See opposite page

**CERCIS. Red Bud, Judas Tree**

**C. Canadensis.** The hardiest and perhaps the finest species of a handsome group of early and profuse-flowering trees. Medium height, forming a broad, irregular head of glossy, heart-shaped leaves that color pure yellow in fall. It blooms in earliest spring, with the dogwoods and magnolias, and is valuable for grouping with them. Its masses of small, delicate rosy purple flowers wreath the leafless branches so thickly as to give very fine contrasts and cheery spring effects. Must be transplanted when small.

**C. Japonica.** *Japan Judas Tree.* Flowers larger and of a deeper reddish purple than those of the American variety. A choice and valuable small tree.

**CLADRASTIS. Yellow-wood**

**C. tinctoria (Virgilia lutea).** One of the most beautiful medium-sized native flowering trees. It has a short trunk and wide, rounded head of handsome foliage that colors clear yellow in fall. In June it is showy and fragrant, with long, drooping racemes of pure white, pea-shaped flowers.



**Flowers of Japan Flowering Cherry**



White-flowering Dogwood

## CORNUS. Dogwood

Handsome trees of medium size, flowering after the red buds when most other trees are still bare. Their great, 4-petaled white or red blossoms are carried in showy horizontal masses. They rank next to the magnolias as spring-flowering trees, and next to the scarlet oak for brilliant autumn foliage. In summer their knobs of showy scarlet berries are odd and attractive.

**C. florida.** *White-flowering Dogwood.* The great white flowers are 3 inches and more in width, lasting in favorable weather for as many weeks. Besides the fine characteristics given above, the bright red bark on its young growths makes it attractive and cheery in winter. Blooms when small.

**C. florida, var. flore rubro.** A new and rare variety, with handsome red flowers displayed at an even earlier age than those of the White Dogwood. The two sorts are beautiful for contrasts.

For other species, consult Trees of Drooping Habit and Shrubs.

## CRATAEGUS

### Flowering Thorn

The low, dense, neat habit of the Thorns adapts them well for planting in small yards and for grouping anywhere. They are very hardy and grow well in all dry soils. The foliage is varied, always attractive, handsome and almost evergreen in some cases; the flowers are showy and abundant, often quite fragrant; the fruits are retained long in

some species, are so thick as to burden the branches and frequently of bright colors. Few tree-groups have such a long season of attractiveness, or so many fine points. Their foliage colors brilliantly in fall.

### **C. Crus-galli.** *Cockspur Thorn.*

An exceedingly pretty dwarf tree, with widely extended horizontal branches, giving it a flat-topped effect. The leaves are thick, glossy, semi-persistent, coloring to rich orange and scarlet in fall; flowers profuse, white with tinge of red, opening in May; fruits showy scarlet, persistent until spring.

### **C. Oxyacantha, var. alba flore pleno.** *Double White Hawthorn.*

When in bloom a mass of clustered double,

rose-like white blossoms. Very handsome.

**var. coccinea flore pleno.** *Paul's Double Scarlet Thorn.* Of quick growth, showy, new and perhaps the best sort. The large, perfectly double flowers are a rich, glowing crimson.

**var. rosea flore pleno.** *Double Pink Hawthorn.* Has the English Hawthorn's fine habit and fragrance. Pretty rose-colored blooms.



Rivers' Blood-leaved Beech. See opposite page



**CYTISUS. Golden Chain**

**C. Laburnum.** Golden Chain of the Germans. This charming small tree takes its familiar name from the long racemes of golden yellow flowers with which it is radiant in June. It is of picturesquely irregular growth, and has glossy pinnate leaves. Prefers a somewhat sheltered situation.

**FAGUS. Beech**

These are hard-wood trees of moderate growth and great beauty, invaluable for specimens, avenues and screens. They are distinguishable by their sturdy, solid trunks, smooth, gray bark and lustrous leaves, disposed in horizontal masses. All are beautiful even when small, and become magnificent with age. Prune back severely when planting.

**F. ferruginea.** *American Beech.* Our noble native forest tree, with silvery bark, fine spreading growth and symmetrical rounded head. Especially attractive in spring with the tender, delicate green of its leaves and pendent flowers. Pure yellow in fall.

**F. sylvatica.** *English Beech.* Slower growing, more compact, with larger foliage that clings through winter. Valuable for specimens, grouping and for screens.

**var. heterophylla.** *Fern-leaved Beech.* An elegant dwarf variety of the English Beech, with delicately cut leaves and slender drooping young shoots that give it a singularly airy and graceful wavy aspect.

**var. incisa.** *Cut-leaved Beech.* A specimen tree of rare beauty, erect and rapid in growth, with leaves curiously divided and deeply cut.

**var. purpurea.** *Purple, or Copper Beech.* A vigorous, elegant tree, reaching 40 to 50 feet in height, with foliage changing from deep purple in spring, through crimson in summer, to purplish green in fall. Hardy, long-lived, free from insect pests, useful for specimens or grouping.

**var. purpurea Riversi.** *Rivers' Blood-leaved Beech.* Where a large tree with purple foliage is wanted, nothing equals this. It is generally conceded to be the finest of all purple-leaved trees. Though it varies in intensity of color, from early spring until late fall the leaves are always a rich shade.

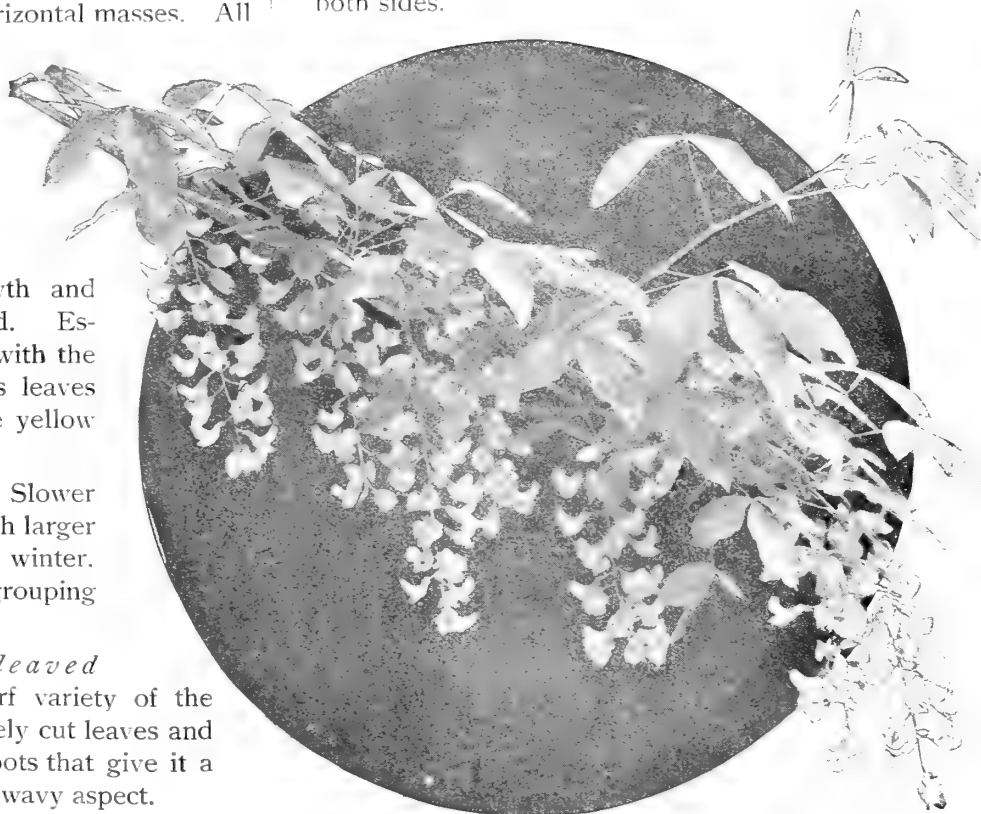
**var. purpurea rosea marginata.** *Tricolored Beech.* A charming form, with deep purple leaves margined with rose. Give a sheltered position.

**FRAXINUS. Ash**

The Ashes most important in cultivation are mostly tall, pyramidal trees with rather light green pinnate leaves that turn yellow, dark purple, or remain plain green in fall. They grow rapidly when young, and are easily transplanted.

**F. Americana.** *American White Ash.* Our forest tree, tallest of the species, with straight, clean trunk, smooth, gray bark and glossy leaves. Useful for parks, streets, or large grounds. Will thrive where *F. Europæa* languishes.

**F. lanceolata** (*F. viridis*). *Green Ash.* A pretty tree of medium size, with leaves plain green on both sides.



Flowers of *Cytisus Laburnum*

**F. excelsior.** *European Ash.* Somewhat smaller and more spreading than the American Ash, with short, thick trunk and darker foliage. Remains green in fall.

**F. Ornus.** *Flowering Ash.* Small and neat-growing, with terminal panicles of fringe-like, greenish white flowers in May or June.

**GLEDITSCHIA. Honey Locust**

**G. triacanthos.** *Three-thorned Honey Locust.* A large, vigorous tree, with wide-spreading branches, feathery fern-like leaves, and a stout armament of thorns. Makes a fine defensive hedge.

**var. inermis.** *Thornless Honey Locust.* A handsome tree of slenderer habit, almost spineless, and therefore more suitable for lawns.





European Larch

### GYMNOCLADUS. Coffee Tree

**G. Canadensis.** *Kentucky Coffee Tree.* A picturesquely irregular tree of secondary size, with peculiar, rough-barked, twigless branches and broad fronds of twice-pinnate foliage of a peculiar bluish green. The familiar name is from the seeds in its broad beans, which were once used for coffee in the southern mountains. Yellow in fall.

### HALESIA

Snowball, or Silver Bell Tree

**H. tetraptera.** A neat and pretty little tree, with large, dark green leaves. In May, while the latter are yet small, its branches are hung thickly with small white or pinkish drooping bells about one inch long. These are followed by large and curious winged seeds.

**JUGLANS** (Walnut). See Nut Trees

### KOELREUTERIA

**K. paniculata.** *Varnish Tree.* A rare tree from North China, very showy in July, when spangled with foot-long clusters of golden yellow flowers, and in autumn, when its foliage colors to crimson and gold. Hardy, small, round-headed, with light, airy leaves.

### LARIX. Larch

**L. Europæa.** *European Larch.* A tall and handsome deciduous conifer, with tapering trunk and pyramidal head. Particularly beautiful in early spring, when covered with soft and feathery foliage of a delicate green. Its plummy foliage and drooping twigs give it a very graceful effect. A grand, hardy lawn tree that thrives well in all but soggy soils. The autumn effect is very beautiful, the foliage turning a brilliant yellow, giving the tree the appearance of being a fountain of gold. From a practical standpoint it is a good tree to plant, as its wood is very valuable for many purposes.

### LIQUIDAMBAR. Sweet Gum

**L. styraciflua.** A tree that is beautiful at all stages, useful in all sorts of planting, and has more distinct, admirable traits than perhaps any other. Varying from 60 to 80 feet in height, it has a narrowly ovate head, formed of short, corky-winged branches and masses of star-shaped, lustrous leaves, that color to intense crimson-scarlet in fall. Even in winter its odd, swinging seed-balls and cork-winged branches make it picturesque and interesting. The name is from its fragrant sap and leaves. We have no finer tree for street and park planting, or for specimens.



Flowers of Tulip Tree. See opposite page

**LIRIODENDRON. Tulip Tree**

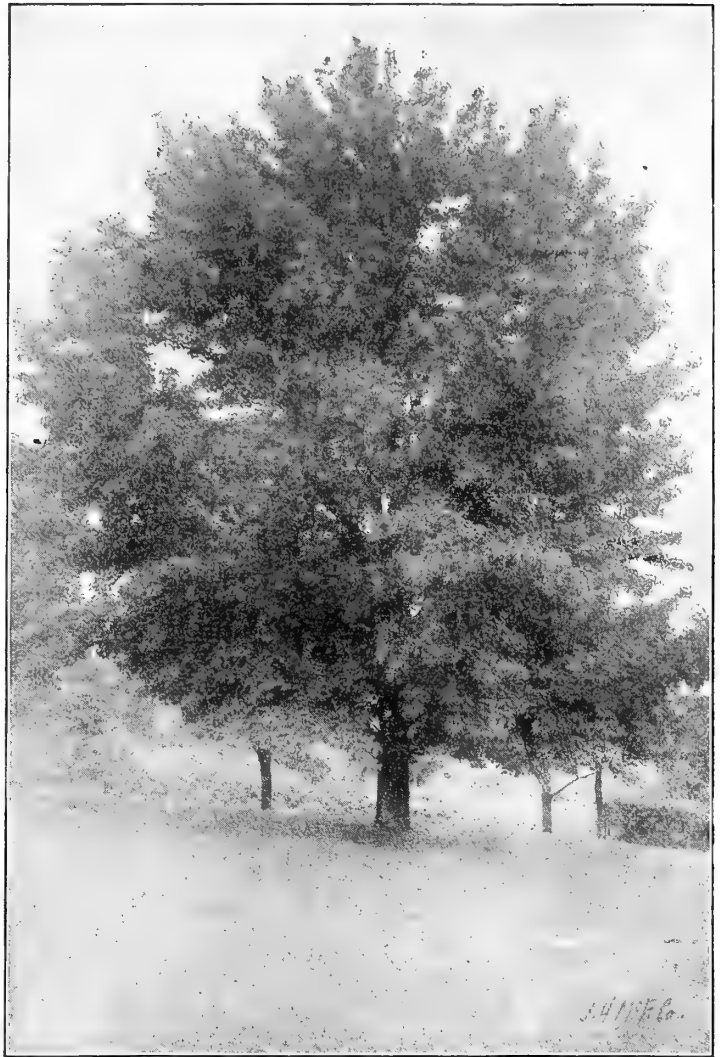
**L. tulipifera.** A tall, magnificent native, of rapid pyramidal growth. Its smooth, erect gray bole rises to a great height, and is clothed with a splendid vesture of large, glossy leaves, spangled in spring with large, tulip-shaped flowers of greenish yellow and orange. One of our most distinguished tall trees for broad avenues, parks and lawns.

**MAGNOLIA**

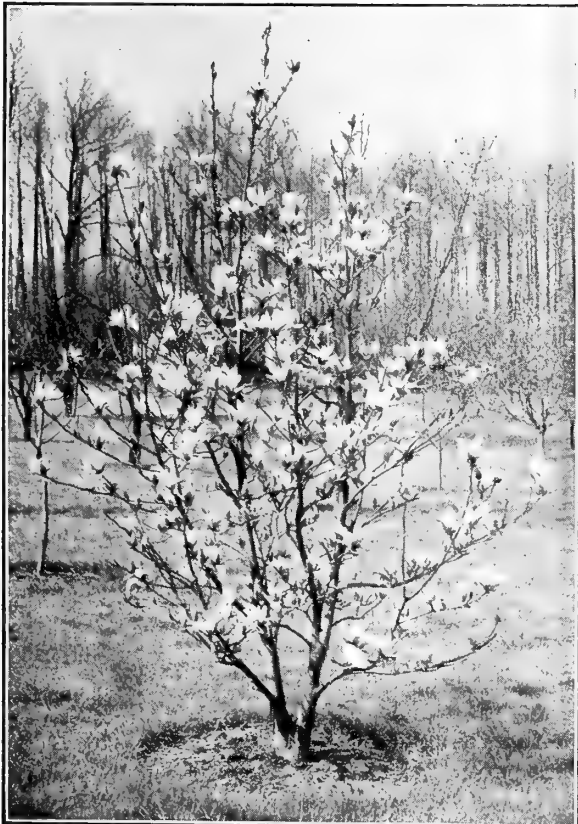
The spring inflorescence of the Magnolias is grand beyond description. Their great white, pink and purple cups open in rich profusion before the leaves of other trees appear; the fruits which follow them are large, bright-colored and showy; the leaves are tropical in size and appearance; the trees are naturally of fine habit and bloom when quite small. They should be transplanted only in spring.

**Chinese Species and Their Hybrids**

**M. conspicua.** *Chinese White Magnolia.* A choice, showy species, shrub-like when young, but gradually forming a medium-sized tree. Its superb white flowers cover the tree thickly in April, and form a conspicuous, handsome ornament to the lawn.



**Sweet Gum Tree.** See opposite page



**Soulange's Magnolia**

**Magnolia Lennei.** A hybrid variety of great beauty.

The large flowers are of a deep rose-color, the foliage tropical and heavy, the tree vigorous and profuse-blooming, frequently opening grand flowers at intervals through the summer.

**M. Halleana** (*M. stellata*). A pretty dwarf form that opens its snowy, semi-double flowers in April, earlier than any other Magnolia; their fragrance is pronounced and delicate. Still rare.

**M. purpurea** (*M. obovata*). Of dwarf habit; very showy in May and June, when its great purple flowers are open.

**M. Soulangeana.** *Soulange's Magnolia.* One of the hardiest and finest of foreign Magnolias, resembling *Conspicua* in flower and habit. Its blossoms are from 3 to 5 inches across, cup-shaped, white and rosy violet, opening a little later than *Conspicua*, yet before its leaves, which are massive and glossy.

**M. speciosa.** *Showy-flowered Magnolia.* The flowers of this species are a trifle smaller and lighter-colored than *Soulangeana's*; they open about a week later and remain perfect on the tree longer than those of any other Chinese Magnolia. Very hardy.

### Hardy American Magnolias

**M. acuminata.** *Cucumber Magnolia.* The tallest of all the species, growing rapidly into a fine pyramidal tree, 60 to 90 feet high. In midsummer large creamy white blossoms appear among its deep green leaves, and large cucumber-shaped fruits that turn bright crimson succeed them. A grand avenue tree. Yellow in fall.



Oriental Plane Tree

**M. glauca.** *Sweet Bay.* When planted in moist soil this makes a handsome tree of medium size. Its leaves are glossy, laurel-like, almost evergreen. In June its pure white flower-cups are lovely and fragrant.

**M. tripetala.** *Umbrella Tree.* Named from the whorled arrangement of its great, glossy leaves. The white flowers, also of great size, open in June and are followed by rose-colored fruit-cones.

### OSTRYA. Ironwood

**O. Virginica.** *Hop Hornbeam.* A graceful, birch-like tree of small to medium size and slow growth. The bark is beautifully furrowed, the fruits clustered like hops.

### PAULOWNIA. Empress Tree

**P. imperialis.** A large and splendid tree of tropical appearance. Its erect panicles of handsome lilac-purple flowers are often a foot long; the great leaves frequently measure 18 inches across, or larger, if cut back every year as in tropical bedding. It is perfectly hardy in this climate, and has a distinct beauty of its own.

### PERSICA. Peach

At their blossoming time in May every twig and branch of the Double-flowering Peaches is bright with beautifully formed flowers, rendering the trees showy and attractive even at a distance.

**P. vulgaris, var. alba fl. pl.** *Double White-flowering Peach.* Superb buds and blooms of purest white.

**var. sanguinea fl. pl.** *Double Red-flowering Peach.* Semi-double flowers of bright red. A brilliant contrast for grouping with the above.

### PLATANUS

Plane Tree, Sycamore

**P. orientalis.** *Oriental Plane.* One of the oldest cultivated trees; one of the best for street and avenue planting. It grows rapidly to grand size, is bold, picturesque, hardy, healthy, free from insects, vigorous in all soils, especially along the water's edge. A lofty, wide-spreading tree, with large, leathery, clear-cut leaves that turn yellow in fall.

**P. occidentalis.** *American Plane, Buttonwood.* Broad-spreading, round-topped, massive and picturesque. Very effective in winter when its branches show almost as white as a birch's, and its mottled trunk of gray, green and brown is revealed.

### POPULUS. Poplar

Poplars are more easily and quickly grown than almost any other trees, and thrive in nearly all soils. Their leaves are bright and their tops thin, fitting them better for use in composition than as specimen trees. However, where immediate shade is desired, they can be planted with slower-growing, more permanent trees among them, and when the latter are large enough the Poplars may be cut away, if unsatisfactory. For screens, shelter-belts, seaside planting, streets, etc., great numbers of the trees are planted. When this is done judiciously they give a cheerful, sprightly air to almost any place. Their autumn coloring is bright yellow.



European Bird Cherry

## POPULUS, continued

- P. alba Bolleana.** Similar to the well-known Lombardy Poplar in habit, and, like it, useful in breaking the monotony of lower, round-topped trees. Its leaves are glossy green above, silvery beneath. A favorite with landscape gardeners.
- P. balsamifera.** *Balsam Poplar, Balm of Gilead.* A handsome native, with thick, dark, ovate leaves, silvery beneath. The spicy gum of the buds is used medicinally.
- P. nigra, var. Italica** (*P. fastigiata*). *Lombardy, or Italian Poplar.* Of obelisk form, growing rapidly to extravagant heights. Forms striking lawn groups; is much used at Newport for tall screen-hedges. Always makes a striking feature in any landscape.
- P. monilifera.** *Carolina Poplar.* Unexcelled for quick growth and effect, its rapid growth giving an air of luxuriance to places where other trees appear starved. Showy and cheery from the constant movement of its glossy, silver-lined leaves, yet always casting a dense, cool shade. If well pruned back during the first few seasons it makes a strong, durable tree. Is yearly planted in great numbers, and is one of the most popular street trees. In some cities it is planted almost exclusively when opening new streets in residence sections.
- var. aurea Van Geertii.** *Golden Poplar.* One of the finest golden-leaved trees for contrast groups, as it holds its color well throughout the season. Has all the fine, vigorous characteristics of the species.

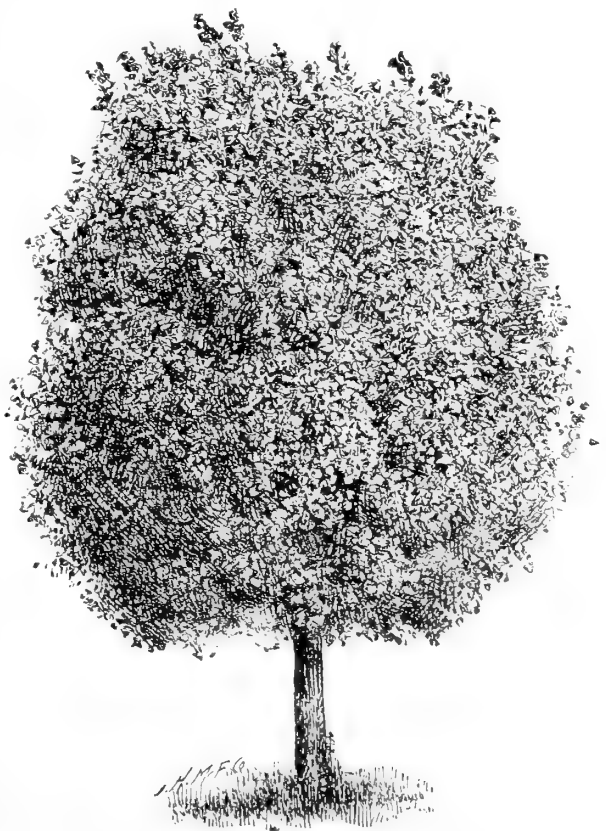
## PRUNUS. Plum

**P. Padus.** *European Bird Cherry.* A pretty medium-sized tree, with glossy leaves and long clusters of small, fragrant white flowers in May. These are followed by black fruits, loved of all the birds. One of the earliest trees to leaf out in the Spring.

**P. Pissardi.** *Purple-leaved Plum.* A distinct and handsome little tree, covered with a mass of small white single flowers in spring, later with showy pinkish purple leaves that deepen in color to the end of the season.

Valuable for ornamental

hedges or planting in quantity for contrast. It is perfectly hardy wherever the common plum will stand, and is a unique and beautiful ornament to the lawn at all times of the year. One of the most valuable of the flowering trees.



Carolina Poplar

Trimmed to a round head, as is generally done in street planting





Scarlet Oak. See opposite page

## PTELEA. Hop Tree

These are small, unique lawn trees, with glossy, trifoliate leaves that exhale a hop-like odor when bruised. This odor is even more noticeable in the seeds, which hang in hop-like, light green clusters for some time after the leaves have fallen in autumn. Of easy culture in any soil.

**P. trifoliata.** Hardy, rounded, handsome in leaf and fruit.

**var. aurea.** *Golden Hop Tree.* Of the same handsome, fruitful habit, but with very glossy, golden yellow leaves, constant throughout the season. Admirable for contrasts and grouping.

## PYRUS. Crab and Mountain Ash

The Flowering Crabs are hardy, handsome little trees, fragrant in early spring with clusters of exquisite buds and flowers. The single sorts also bear crops of bright, cherry-like fruits. The Mountain Ashes are medium-sized trees, with pinnate leaves and showy crops of red berries.

**P. angustifolia, var. Bechteli.** Most beautiful of all the fine varieties of Flowering Crabs. At a distance the pretty medium-sized tree seems to be covered with dainty little roses of a delicate pink color. Blooms when quite young. Is very fragrant.

**P. floribunda, var. Scheideckeri.** A new variety from Germany, found to be very free in the production of its semi-double red buds and pink and white blossoms.

**var. Medwietskyana.** The entire tree, excepting the old leaves, is tinged with red—wood, bark, stems, young shoots with tender leaves, flowers and fruits. The last two are of a beautiful shade of deep red.

**P. Parkmani (P. Halliana).** *Parkman's Double-flowering Crab.* An elegant Japanese dwarf, with long-stemmed semi-double flowers of deep rose-color wreathing its branches. It makes a fine, compact growth and its deep green leaves are retained quite late. The buds are long and handsome.

**P. spectabilis, var. alba flore pleno.** White, double, fragrant flowers in May. One of the handsomest flowering trees, and perfectly hardy.

**var. rosea fl. pl.** Double, fragrant, rose-colored flowers nearly 2 inches in diameter. Distinct, beautiful and deservedly popular. Makes a fine contrast to the white variety.



Flowers of Bechtel's Flowering Crab



**SORBUS. Mountain Ash**

Medium-sized trees, with handsome pinnate leaves, neat habit and showy crops of bright red berries, persistent until late in winter.

**Sorbus (Pyrus) Aucuparia.** *European Mountain Ash.*

Hardy, erect, with smooth bark and dense, regular head; berry clusters large and bright.

**var. quercifolia.** *Oak-leaved Mountain Ash.* Of the same fine habit, but with dark, lobed leaves, downy underneath.

**QUERCUS. Oak**

Although their growth at first is slow, if planted in good soil the Oaks will outgrow many other trees. For wide lawns, parks, public grounds, avenues, etc., where they have room to develop, few trees are so majestic and imposing, so enduring, so varied in expression. Their great vigor and hardihood enable them to withstand many untoward conditions.

**Q. alba.** *White Oak.* Grandest of its genus and of our American trees. A spreading, towering species, with rugged, massive trunk and branches. The deeply lobed leaves change to dark crimson in fall.

**Q. bicolor.** *Swamp White Oak.* Easily distinguished from the true White Oak by its smaller size, light gray, scaling bark and numerous small branches.

**Q. coccinea.** *Scarlet Oak.* A grand, round-topped tree, with bright green, deeply cut leaves that color to sparkling red in fall.

**Q. pedunculata, var. fastigiata.** *Pyramidal Oak.* A distinct, handsome form, with upright branches forming a narrow columnar head. Green until late in fall.

**Q. macrocarpa.** *Mossy Cup, or Bur Oak.* Of massive, open growth, with moss-fringed acorns, large, heavy leaves and deeply corrugated bark.

**Q. palustris.** *The beautiful Pin Oak.* Almost pyramidal in habit, and sometimes described as half-weeping when old, because its lower branches touch the ground. It grows faster and develops the family characteristics earlier than most Oaks, as may be seen from some fine avenues planted within the last score of years. The leaves are deep green, glossy and finely divided. Orange-scarlet in fall.

**Q. Prinus.** *Chestnut Oak.* Native to dry situations; a broad, irregular-topped tree, with handsome leaves, toothed like the chestnut's. Oddly mottled with scarlet, bronze and yellow in fall.

**Q. robur.** *English Oak.* A broad, spreading, graceful tree, of slow growth, reaching mighty stature and remaining vigorous and beautiful for centuries.

**var. concordia.** *Golden Oak.* A choice variety of medium growth, with bright yellow foliage through spring and early summer. Hardy, healthy, constant in color; conspicuous in any collection.



**Pin Oak**

**Q. rubra.** *Red Oak.* A large tree, unusually large in leaf and quick in growth. The young shoots and leaf-stems are red, the foliage purplish crimson in autumn. A most beautiful, majestic object on the lawn.

**Q. velutina (Q. tinctoria).** *Black Oak.* Of quick growth, even on dry soils where no other Oaks will thrive; makes a large, lofty tree. Not as handsome as some other varieties, but the wood is more valuable. Foliage orange-brown in fall.



American Linden. See opposite page

## SALISBURIA. Ginkgo

**S. adiantifolia.** *Maidenhair Fern Tree.* A distinguished Japanese tree, of columnar growth when young, spreading with age into an odd, sketchy outline. Its thick, leathery leaves are clear-cut and shaped like the leaves of the Maidenhair Fern. A rare and elegant tree that is yet robust enough to endure general city planting. Its unique appearance and habit of growth make it a valuable acquisition. Grows fast; has no insect or fungous enemies.

## SASSAFRAS

**S. officinale.** A really handsome medium-sized tree, with fragrant light green foliage and bark. Its small yellow flowers are attractive in early spring, and followed later by dark blue fruits. Grows well even on thin soils.

## SALIX. Willow

Besides the beauty of their airy summer foliage, the Willows have a distinct value in the brightness of their bark when leaves have fallen. There are few trees that can be used to such advantage for cheery winter effects. They grow fast and are adapted

to a variety of soils and uses. Frequent cutting back gives a thicker growth of bright young twigs.

**Salix laurifolia.** *Laurel-leaved Willow.* A beautiful, distinct, medium-sized tree, with shining, laurel-like leaves that make it very conspicuous in sunshine. Can be clipped into form like a bay tree; has bright green bark; is beautiful the year round.

**S. rosmarinifolia** *Rosemary-leaved Willow.* A pretty dwarf, very airy in effect, because of its feathery branches and small silvery leaves. Grafted on tall stems, it forms a neat, round head of feathery silver-gray, found quite useful in formal work.

**S. vitellina aurea.** A fine tree at all seasons, but very showy in the winter months for its bright yellow bark, making it a conspicuous feature in the landscape.

We can also supply in quantity other bright-barked Willows for grouping, among them **Cardinalis** and its variety, **Wentworth** (bright and deep red), **Canescens**, **Scarlet**, **Japan** and **Golden**.



American Elm in early spring. See opposite page

**SOPHORA. Pagoda Tree**

**S. Japonica.** *Japan Pagoda Tree.* An odd and unique specimen tree, so different from other trees in style of growth that it always attracts attention. In August its shining green leaves are decked with clusters of white blossoms.

**TAXODIUM. Deciduous Cypress**

**T. distichum.** The famous *Southern*, or *Bald Cypress* is perfectly hardy even in the North, and grows well on dry or wet soil. It is a beautiful and stately tree, with light and fleecy foliage of delicate green.

**TILIA. Linden, Basswood**

The Lindens grow fast, forming noble trees of rounded outline, and casting a dense, cool shade. The leaves are large and cordate, the flowers light yellow, exhaling a delightful citron odor. All are among our best large-growing street and avenue trees, fine also for specimens and grouping.

**T. Americana.** *American Linden.* Splendid in form and stature, larger and more open than the others, with larger leaves.

**T. Europæa.** *European Linden.* Forms a beautiful dense head; fragrant blossoms.  
**var. argentea.** *Silver-leaved Linden.* Conspicuous among other trees because of its silver-lined leaves. These give it great brilliancy when ruffled by the wind. Handsome, vigorous, pyramidal.

**ULMUS. Elm**

Where given room to develop, the Elm forms majestic specimens of lofty height and retains its beauty and vigor almost as long as the oaks. In landscape planting it is one of our most useful trees. All the species make a rapid growth under favorable conditions.

**U. Americana.** *American Elm.* Easily distinguished by its wide, arching top and pendulous branchlets. Next to the oak this is the grandest and most picturesque of American trees. Dull yellow or brown in fall.

**U. campestris.** *English Elm.* More densely branched than the American, with smaller, darker leaves, retained longer in autumn. The branches project from the trunk almost at right angles.

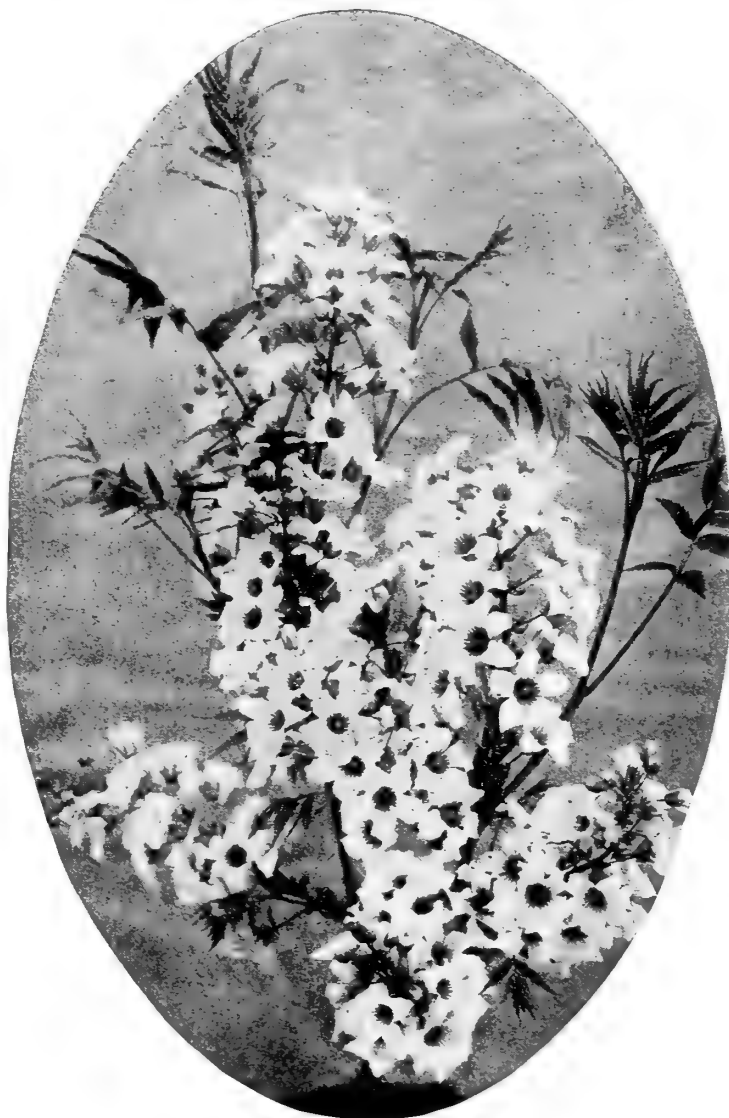
**var. Dampierrei aurea.** *Dampierre's Golden Elm.* Leaves of bright golden yellow, with green spots in center. Very striking.

**var. stricta purpurea.** *Purple-leaved English Elm.* Leaves purple, branches erect. A beautiful contrast for the green- and golden-leaved Elms.

**U. fulva.** *Red, or Slippery Elm.* Somewhat smaller than the American and English Elms, with larger leaves. Forms a spreading head and is a good avenue tree. Yellowish in fall. The mucilaginous bark is medicinal.

**U. scabra** (*U. montana*). *Scotch, or Wych Elm.* A grand, spreading tree of rapid growth and variable habit. Three of its best cultivated forms follow.

**var. Dovæi.** A remarkably vigorous, upright-growing sort, especially adapted to street planting.



Flowers of *Xanthoceras sorbifolia*

**var. Huntingdoni.** *Huntingdon Elm.* Erect, vigorous and quick in growth, with clean, smooth bark. One of the finest Elms for any purpose.

**var. fastigiata (pyramidalis).** Forms a beautiful medium-sized specimen tree of elegant pyramidal habit.

**XANTHOCERAS**

**X. sorbifolia.** A pretty little tree, with glossy, pinnate foliage something like that of the Mountain Ash, and long racemes of showy white flowers. Even quite young bushes sometimes flower profusely. Frequently used for forcing.

## DECIDUOUS TREES OF DROOPING HABIT

The trees of this group are not at all mournful in expression, and the term "Weeping," so generally applied to them, is inappropriate. The most prominent characteristic of most of them is exceeding grace; a few are grotesque and interesting from their oddity. All are invaluable for the variety they add to landscape and garden.

### BETULA. Birch

**B. alba.** Often classed with Weeping Trees. See page 43.

**var. pendula laciniata.** *Cut-leaved Weeping White Birch.* Many attractive characteristics combine to make this a tree of wonderful grace and beauty. Tall, slender, vigorous, with slender branches in drooping festoons of delicately cut leaves but half concealing the white, upright trunk. It colors brilliantly in fall and makes a beautiful white winter picture if planted against evergreens.

**var. pendula elegans.** Much more pendulous in habit; a swirling mass of slender branches and delicate, airy spray.

**B. alba, var. pendula Youngi.** Of naturally trailing growth, with long, slender shoots of picturesquely irregular form. Grafted on good stems it forms one of our handsomest dome shaped trees.

### CERASUS

**C. Japonica rosea pendula.** *Japan Weeping Rose-flowered Cherry.* An exquisite little tree, draped in rosy masses of bloom in early spring before its leaves appear. Even when grafted on tall stems its slender branches sometimes sweep the grass in graceful garlands. Well adapted to small lawns and a choice bit of furniture for large ones.

### CORNUS. Dogwood

**C. florida pendula.** *White Weeping Dogwood.* An odd and pretty little tree, adding to the good characteristics of the other Dogwoods a distinct weeping habit, which makes it a unique and interesting member of this family.

### FAGUS. Beech

**F. sylvatica pendula.** *Weeping Beech.* A large, luxuriant tree of curious irregular growth. Its sparkling masses of foliage are swept by tortuous branches into fountain-like masses of green, wonderfully rich and graceful in effect.

### FRAXINUS. Ash

**F. excelsior pendula.** *Weeping English Ash.* Grafted on tall stems this tree spreads into a pretty green tent of shade, making it a distinct and beautiful ornament to the lawn.

### GLEDITSCHIA

**G. triacanthos, var. Bujoti.** The young growths are slender and pendulous, the leaves even more delicately cut than in the erect form. Grafted on tall stems, it is a rare and elegant little tree.



Weeping Beech



**MORUS. Mulberry'**

**M. alba, var. Tatarica pendula.** *Teas' Weeping Mulberry.* We cordially recommend this as one of the thriftiest, hardiest and most beautiful of weeping trees. It transplants easily and is appropriate for both large and small places. The leaves are lustrous, distinctly lobed; the branches slender and willowy, forming a tall, narrow green tent of dense shade.

**POPULUS**

**P. grandidentata.** Sometimes known as *Parasol de St. Julien.* The slender branches droop gracefully about a neat, round head.

**PYRUS**

**P. Malus pendula.** A beautiful flowering crab of strong growth, forming a dense, spreading head. Pretty at all seasons, exquisite when in bloom.

**P. (Sorbus) Aucuparia pendula.** The *Weeping Mountain Ash* is a picturesque little tree for lawn specimens or for covering arbors. It has foliage and fruit like the European Mountain Ash.

**TILIA. Linden**

**T. petiolaria pendula.** *Weeping Silver-leaved Linden.* An elegant medium-sized tree of gracefully pendulous habit, that holds its large, silver-lined leaves through the season. Hardy, grows fast, and is quite striking.

**SALIX. Willow**

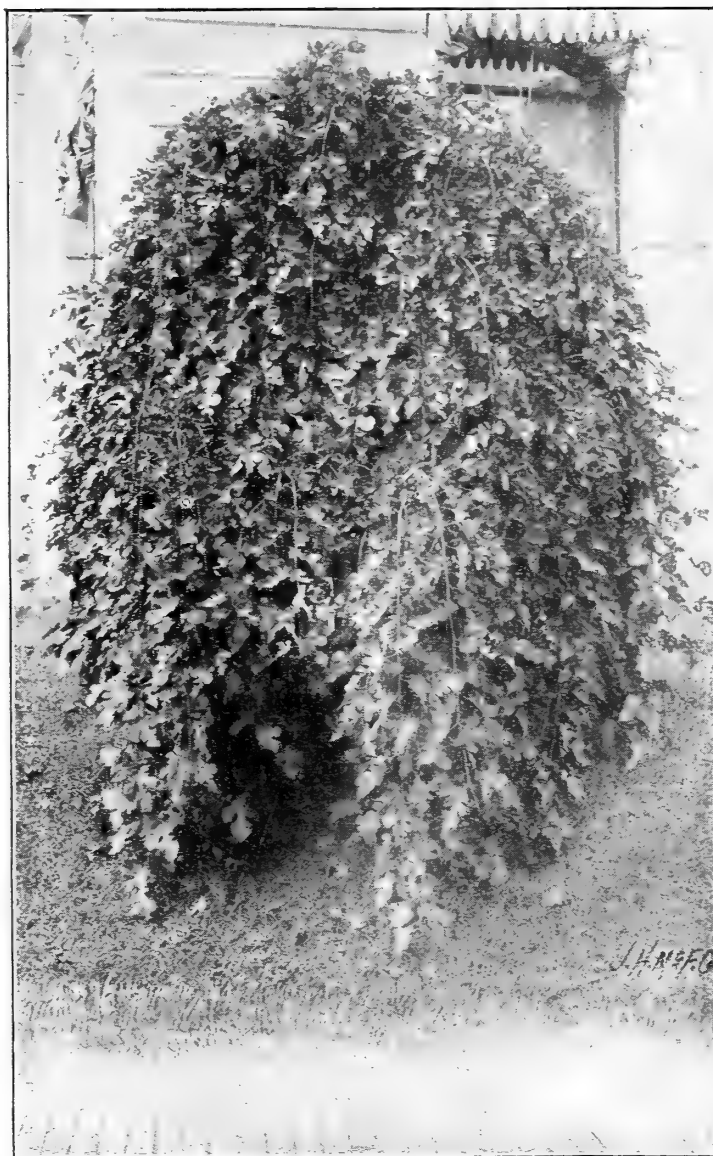
**S. Babylonica.** Our familiar *Weeping Willow.* A tall, fine, drooping tree, with slender branchlets.

**var. dolorosa.** *Wisconsin Weeping Willow.* Of similar fine habit, but hardy farther north.

**var. annularis.** *Ring Willow.* An odd tree, with the leaves twisting so as to form rings along the drooping branchlets. See illustration, page 112.

**S. Caprea, var. pendula.** *Kilmarnock Weeping Willow.* Unique in form and vigorous in all soils, this Willow has been widely disseminated. It is usually grafted 5 to 7 feet high on stout stems, and then forms a cone of glossy foliage.

**S. elegantissima.** *Thurlow's Weeping Willow.* Larger and more spreading than the Babylonian



Teas' Weeping Mulberry

form, and hardier. Similar to it in foliage and grayish green bark.

**S. purpurea pendula.** *American Weeping Willow.* Forms a fine round head, sweeping outward in fountain shape.

**ULMUS. Elm**

**U. America.** With drooping twig-fringes. See page 55.

**U. fulva pendula.** The most rapid-growing of all weeping trees. The branches at first grow upward, finally bending in graceful curves to the ground.

**U. scabra pendula.** *Camperdown Weeping Elm.* Of fine and notable habit, the strong, stout branches often sweeping out horizontally for several feet before they curve downward, making a broad, handsome head.



# CONE-BEARING EVERGREENS

## *Including Both Trees and Shrubs*

The landscape gardener is no longer content to use evergreens in quantity merely for specimen trees, shelter-belts, screens, hedges, etc. As new beauties are being continually discovered in them, new uses develop also. They form perfect backgrounds for the flowering shrubs of early spring, the berries of autumn and winter's tracery of bright bark and twigs. Beautiful beds of permanent color are formed by grouping together sorts of moderate growth, with contrasting foliage,—golden, golden green, silver-blue, rich, dark and delicate green, with bright-berried sorts interspersed. Other new uses are for filling window-boxes, and growing evergreens in tubs for hall and porch plants.

Our evergreens are all carefully grown, at good distances for symmetrical development, are root- and top-pruned into handsome, shapely specimens that will transplant successfully to new homes with ordinary care. We pack them so that the root-fibers are well protected and will reach their destination in good growing condition. If planters will continue this care to keep the fibers from drying out by exposure to air and sun until the stock is planted, its success is reasonably sure. Prune evergreens before their spring growth starts, and only when necessary to thicken their growth or preserve their shape.

All who desire **LARGE SPECIMEN EVERGREENS** are invited to send us their lists. We have some very handsome specimens, and will be glad to furnish estimates.

## ABIES. Fir and Spruce

**A. balsamea.** *American Silver Fir.* A regular symmetrical tree, assuming the cone shape when quite young, reaching 50 to 80 feet in old age. Leaves dark, lustrous green, lighter beneath.

**A. Canadensis.** Described under *Tsuga*.

**A. Cephalonica.** *Cephalonian Silver Fir.* A remarkably fine Grecian species, very broad for its

height, quite hardy and vigorous. The leaves are sharp-pointed, silvery and dagger-shaped. 60 to 70 feet.

**A. concolor.** The *White Fir* of the Rocky Mountains is one of the most beautiful species in cultivation. It withstands heat and drought better than any other Fir, is very hardy and grows rapidly. Its graceful habit and broad, handsome foliage, glinting with blue on the upper surface, silvery beneath, make it a rival for the elegant Colorado Blue Spruce. Especially bright when young.

**var. violacea.** Like the above, with foliage of a deeper blue.

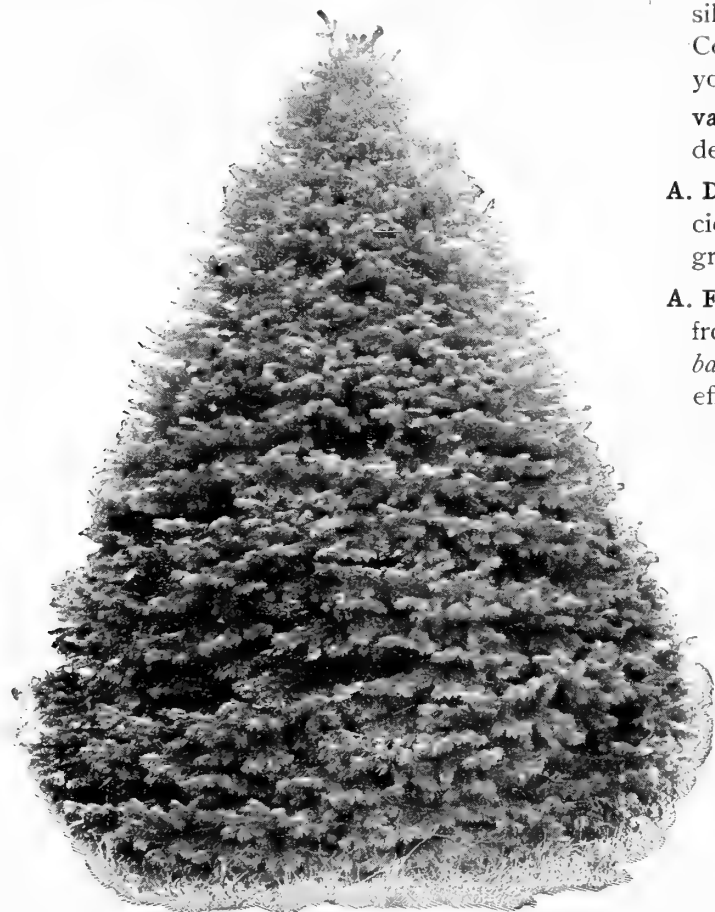
**A. Douglasi.** *Douglas' Spruce.* A Colorado species. Forms a large, spreading cone of light green foliage.

**A. Fraseri.** The *Double Balsam Fir* is a rare form from the southern Alleghanies, similar to *A. balsamea* in habit, but longer-lived and richer in effect.

**A. Nordmanniana.** *Nordmann's Silver Fir.*

One of the richest evergreens, forming a dense, dark specimen tree of beautiful proportions, that may be finely contrasted with lighter-foliaged sorts. The foliage is wide, dark and lustrous, with a silvery, sparkling under-surface. Its moderate growth adapts the tree well even to grounds of small extent, but with age it reaches grand size, and when fully grown is a most noble and imposing feature on a large lawn.

**A. Picea** (*A. pectinata*). *European Silver Fir.* Forms a fine pyramid of deep green; grows fast, is hardy and holds its color well.



Nordmann's Silver Fir

**CUPRESSUS. Cypress**

**C. Lawsoniana.** *Lawson's Cypress.* A rare, handsome conifer that forms beautiful specimens. The branches are frond-like in arrangement and droop gracefully at the tips, forming a dense, elegant pyramid. Their rich deep green color is retained all winter.

**CHAMAECYPARIS**

**C. Nutkaensis** (*Thuyopsis borealis*). *Nootka Sound Cypress, Yellow Cedar.* An extra choice pyramidal evergreen, with spreading, curving branches and flexible branchlets drooping at the tips. Leaves glaucous green.

**JUNIPERUS. Juniper, Red Cedar**

**J. communis.** *English Juniper.* A neat, dense, fastigate tree, with foliage of grayish green. Useful in formal work.

**var. Hibernica.** *Irish Juniper.* An erect, dense column of dark green, found quite effective in general landscape and formal planting.

**var. Suecica.** *Swedish Juniper.* Of narrow, columnar form, with lighter, more bluish foliage than the Irish Juniper.

**var. Suecica nana.** *Dwarf Swedish Juniper.* A fine and compact dwarf form.

**J. Japonica.** Dwarf, dense, bushy, with light lively green foliage.

**var. aurea.** *Golden Japan Juniper.* Of moderate growth and spreading habit. The attractive golden-hued foliage is constant throughout summer.

**J. excelsa.** Of distinct and compact pyramidal growth, becoming quite tall with age.

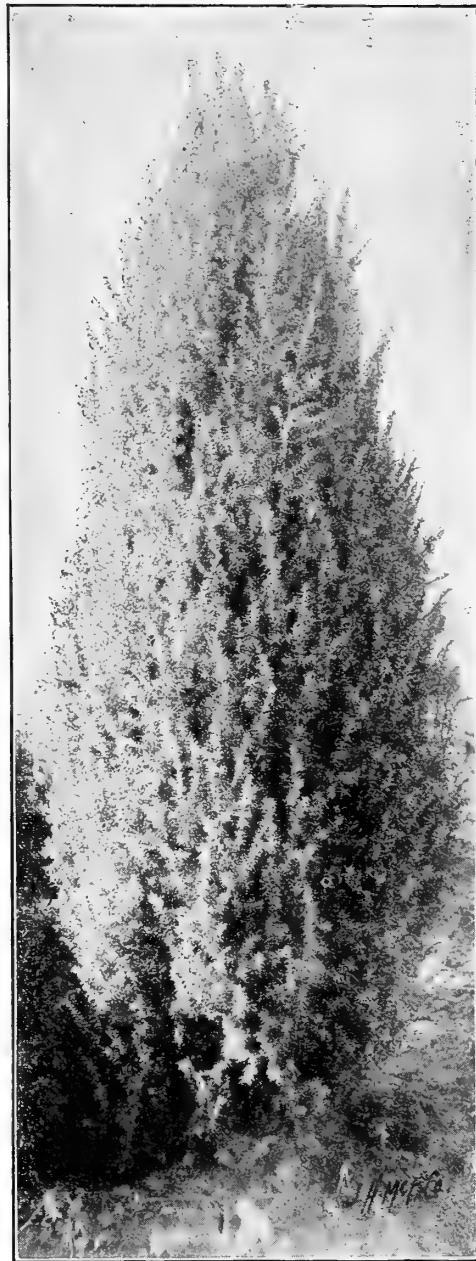
**J. macrocarpa** (*J. Neaboriensis*). Forms dense, distinct pyramids of short branches. The leaves are short, rigid, glaucous. A handsome specimen tree.

**J. Sabina.** *Savin Juniper.* A thickly branched, low, spreading tree, that rarely reaches 10 feet in height; variable, sometimes procumbent. It is very hardy and thrives in the poorest soils; can be trained into any shape. The handsome foliage, of deep dark green, makes it a favorite for many uses, especially for rockwork.

**J. Virginiana.** Our native *Red Cedar* can be used ornamentally in a number of ways, thriving well and making a fine appearance in soils or situation where other trees will not grow.

**var. glauca.** *Blue Virginia Cedar.* Throughout the year the leaves are a rich silvery blue. Very handsome.

**var. variegata.** Constant in its golden variegation; leaves finer than in the type. The three sorts form a handsome group.



Irish Juniper

**PICEA. Spruce**

**P. alba.** *White Spruce.* One of the very best conifers, especially for cold climates. Compact, upright, long-lived, retaining its branches to the ground, aromatic, drought-resisting; varies in color from light green to glaucous blue. A good species for growing in tubs.

**P. Alcockiana.** *Alcock's Spruce.* A hardy and distinct Japanese species of pyramidal habit. Even when quite young it produces cones that add much to its attractiveness. The leaves are deep green, with glaucous white under-surface, creating a most pleasing effect.

**P. Englemanni.** *Englemann's Spruce.* A handsome Colorado species, that is exceedingly hardy and fine in every way. Its soft, plummy foliage is of a delicate bluish color.



Norway Spruce

## PICEA, continued

**P. excelsa.** The *Norway Spruce* and its many uses are well known. It is planted for hedges, shelter-belts, screens, backgrounds, etc., in large quantities every year. It has a naturally fine gothic form, grows fast, and seems to suit all soils.

**var. inverta.** *Weeping Norway Spruce.* Grotesquely pendulous; attractive from its novelty and unique habit.

**P. nigra.** *Black Spruce.* Valuable for cold climates and light, dry soils.

**P. pungens.** The famous *Colorado Blue Spruce.* Most richly colored of the tinted evergreens, hardy in any exposure, of vigorous growth and elegant habit, with broad, plumy branches, often as regularly set in whorls as those of an araucaria. Its form alone would make it a striking object in any landscape, without its silvery blue sheen. This tint is variable in seedlings, therefore we have trees grafted from the best sage-blue specimens that are constant in color, and guarantee them true.

## PINUS. Pine

**P. excelsa.** *Bhotan Pine.* A large, handsome tree of loosely graceful habit, with needles longer, more silvery and pendulous than the White Pine's. A grand specimen tree if given room for development.

**Pinus Laricio, var. Austriaca.** The *Austrian Pine* is one of the best foreign species for this country. Its growth, even when young, is characteristically stout and sturdy. A remarkably robust, hardy, spreading tree of grand size; very dark and massive in effect, and when planted in an appropriate location is distinct and unique.

**P. montana, var. Mughus.** *Dwarf Mugho Pine.* A unique Alpine species, broader than its height and sometimes almost prostrate, forming a dark, dome-shaped bush. Used for planting on rocky banks, terrace slopes, small lawns, rockeries and near the sea.

**P. ponderosa.** A lofty tree from our western coast. Hardy, quick-growing, with long needles of silvery green.

**P. Strobus.** *White, or Weymouth Pine.* Tall, stately and most beautiful of all our native Pines, this is also among the quickest-growing, longest-lived and most generally useful. The needles are long, silvery blue, and plumy in effect; the tree grows naturally into symmetrical specimens and makes a most imposing feature on the lawn when grown singly. It is particularly valuable for the formation of fine backgrounds and shelter-belts for large lawns. A valuable timber tree for even the poorest soils.

**P. sylvestris.** *Scotch Pine.* Dense, broadly pyramidal, luxuriant in growth, with strong, erect shoots and silvery needles.



Colorado Blue Spruce

## PODOCARPUS

**P. nubigena.** A peculiar, charming, erect tree from Japan, hardier and denser than the Irish yew. So handsome in leaf and habit that it is frequently grown in tubs for house decoration. Appropriate and well adapted for cemetery planting.

## RETINOSPORA. Japan Cypress

As miniature trees, these handsome, neat-growing evergreens are unequaled. The group includes species very different in habit, and a number of bright, distinct colors. They give exceedingly pretty effects in outdoor grouping, and, grown in tubs or window-boxes, are valuable for house decoration in winter. Outdoor groups or specimens need some protection in winter.

**R. obtusa, var. gracilis aurea.** A neat and graceful bush, with fern-like young shoots of a fine golden hue.

**R. pisifera.** Of more open growth than the Obtusa varieties, with erect branches, pendulous at the tips; foliage feathery, light green, glaucous beneath.

**var. plumosa.** Densely conical, with fern-like leaves of bright green, carried on erect, plummy branches.



Young White Pine. See opposite page

**Retinospora pisifera, var. plumosa aurea.**

*Golden Japan Cypress.* One of the few really golden evergreens. The color of the young growth contrasts strongly with the darker shade of the older foliage. Striking and useful in many ways.

**var. plumosa argentea.** *Silver-tipped Japan Cypress.* The young growth on the tips of the branches is creamy white, giving the bush a pretty silver-mottled effect.

**var. filifera.** *Thread-branched Japan Cypress.* Of unique and showy habit, always noticeable. The leading shoot grows upright, the branches are nearly horizontal, with long, drooping, tasseled ends. Pyramidal in outline; bright green.

**var. squarrosa.** A handsome, medium-sized lawn tree of dense growth. The silvery blue foliage is almost white when young, almost violet in winter, and arranged in curious spiral form.



Golden Japan Cypress

## TAXUS. Yew

The Yews are choice dwarf evergreens, densely clothed with small, blackish green leaves. Fertile specimens are brightened in autumn with scarlet berries. They thrive



## TAXUS, continued

well in almost any soil, endure shade, and are valuable for formal gardens, beds of contrasting evergreens, etc.

**T. baccata.** *English Yew.* Grows to a tall, dark tree naturally, but can be sheared into any shape and size.

**var. adpressa stricta.** Erect, forming a fine columnar tree.

**var. erecta.** A choice pyramidal sort, with fine, glossy, dark leaves.

**var. elegantissima.** A beautiful small, dense tree. The leaves are striped with silver; sometimes they turn bright yellow.

**var. fastigiata.** *Irish Yew.* Strictly fastigate, with stout, crowded, upright branches. The dark, shining leaves are spirally arranged, the berries are red. One of the best columnar evergreens for formal gardens.

**var. variegata.** Leaves edged with golden yellow. Very effective when used in landscape work.



*Retinospora squarrosa.* See page 61



Golden Arborvitæ

## THUYA. Arborvitæ

The Arborvitæ vary greatly in habit and color. They bear transplanting and pruning well and have many uses, especially in formal gardens. They are also well suited for bedding with other evergreens, for hedges, screens, shelter-belts and house decoration. All are neat and symmetrical in habit, dense, bushy, with flattened, frond-like leaves.

**T. occidentalis.** *American Arborvitæ, White Cedar.* The well-known screen and hedge plant. Will grow even in wet soils.

**var. aurea Douglasi.** *Douglas' Golden Arborvitæ.* Hardest of its color. Of free growth, with long, slender branchlets.

**var. aurea Hoveyi.** *Hovey's Golden Arborvitæ* is a distinct, compact, hardy American seedling; dense and conical, with light golden green foliage.

**var. compacta.** Dense-growing, globular, with leaves of light grayish green.

**var. ericoides.** Dwarf and pyramidal, with heath-like leaves of grayish green.

**var. George Peabody.** A handsome little round bush, with foliage of clear, lasting yellow. The best golden variety.

**var. globosa.** *Globe Arborvitæ.* A dense, round shrub, with pretty light green foliage.

**var. Harrisoni.** A neat little tree; branchlets all tipped with white. Unique in effect.

**var. pumila.** Dwarf, dense, dark green; fine for contrasts.



## THUYA, continued

**T. occidentalis, var. pyramidalis.** *Pyramidal Arborvitæ.* Forms a tall, slender column of dark green, similar to the Irish yews. It keeps its fine color well all season. Very hardy.

**var. Wareana.** *Siberian Arborvitæ.* Pyramidal in shape, but lower and denser than the type. Foliage bright green.

**var. Tom Thumb.** Similar to *T. ericoides* but smaller and more compact. Good for low hedges.

**var. Wareana aurea.** *Golden Siberian Arborvitæ.* Young shoots of golden yellow.

**var. Vervæneana.** Small and dense, with slender branchlets and foliage variegated with yellow.

**T. orientalis, var. aurea.** A fine little globe-shaped bush of bright yellow. The Chinese or Eastern Arborvitæ need some protection in our climate.

**Thuya orientalis, var. elegantissima.** *Rollinson's Golden Arborvitæ.* Distinct from other eastern sorts. The upright, flat branches are held edge-wise to the center of the tree. Their tips are bright yellow in summer, chocolate brown in winter. Very handsome.

**var. semperaurea.** Hardier than most eastern sorts, with brighter, more permanent golden color.

## TSUGA. Hemlock Spruce

**T. Canadensis.** *Hemlock Spruce.* Our beautiful native, naturally open, free and drooping in growth, but very dense when pruned, forming good specimen trees, hedges or shelters. Its dark, pure green color is retained all winter, its grace and vigor to extreme old age.

## BROAD-LEAVED EVERGREENS

## BUXUS. Box

**B. sempervirens.** *Tree Box.* A beautiful evergreen shrub of rather slow growth, with small, shining foliage. Familiar in old-fashioned gardens, indispensable in formal ones. It grows well in many soils and endures much pruning. Quite popular as a tub plant, for house and terrace decoration.

**var. suffruticosa nana.** The pretty *Dwarf Box* so much used for edging. Slow-growing, neat, dense; the best plant in cultivation for the purpose.

**var. variegata.** A beautiful small bush, having its shining leaves oddly marked with white.

## DAPHNE

**D. Cneorum.** *Garland Flower.* A charming dwarf shrub, with fine foliage and dainty clusters of pink, perfumed flowers in May. Blooms at intervals until September.

**EUONYMUS RADICANS.** See Hardy Vines

## KALMIA

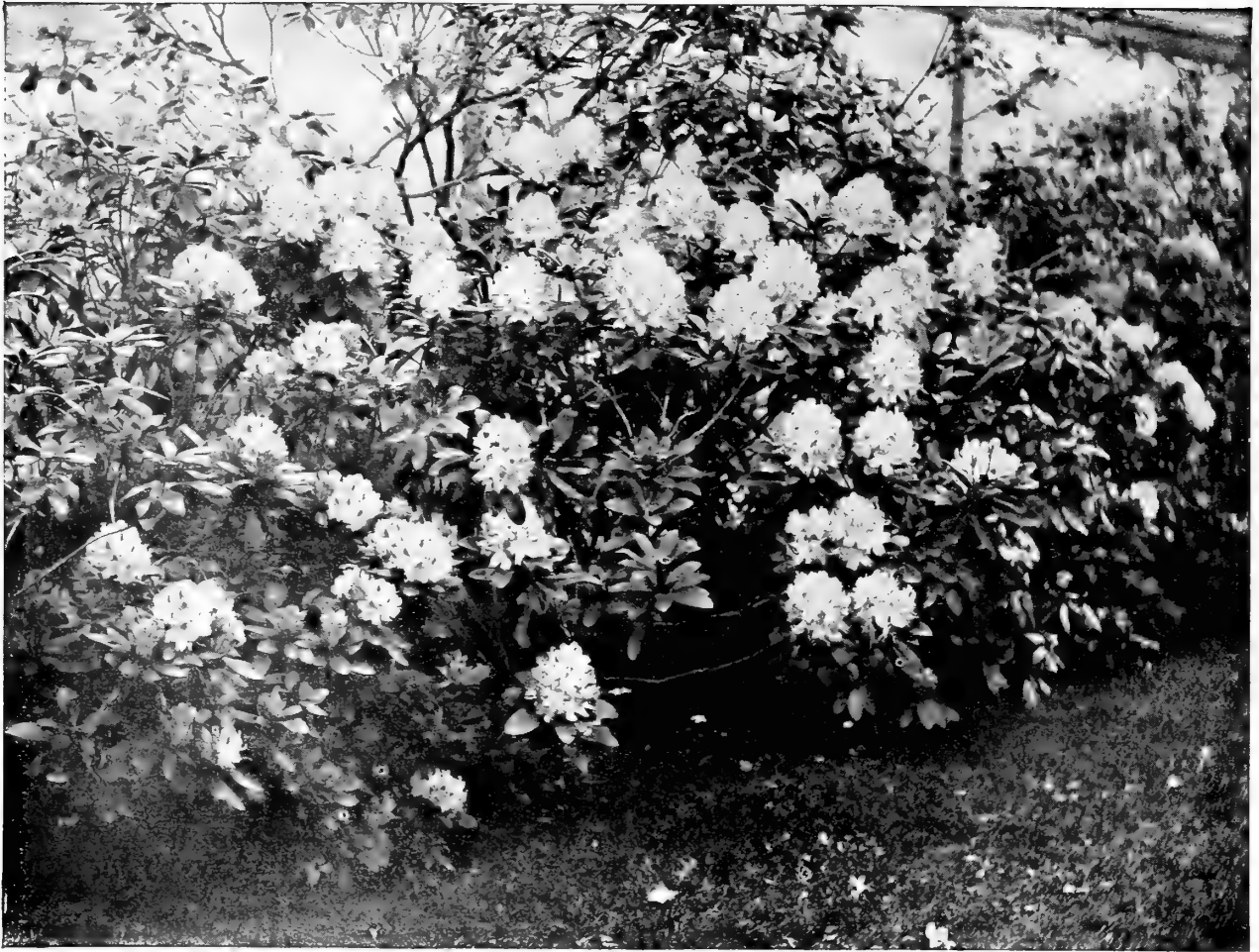
**K. latifolia.** *Mountain Laurel, Calico Bush.* Next to the rhododendron this is our most beautiful hardy evergreen. Its quaintly formed, rosy white buds and flowers cluster in great trusses and contrast finely with the shining, dark leaves. Even small plants are gay with them. Nothing could be finer for grouping with rhododendrons, for massing in groups or planting singly. Easily forced and frequently grown in tubs.

## MAHONIA

**M. aquifolia.** *Holly-leaved Mahonia.* Sometimes included under Berberis. Handsome native evergreen of medium size, with shining prickly leaves and showy, bright yellow flowers in May, followed by bluish berries. Quite useful in decorative planting for its neat habit and fine bronze-green leaves.



Flowers of *Kalmia latifolia*



Hardy Rhododendron

## ILEX

**I. opaca.** *American Holly.* Quite as handsome as any of the foreign sorts, taller, hardier and more richly berried. Its foliage is distinct, and its bright, rich red berries make a good substitute for flowers in the winter shrubbery. This is the shrub that is so generally used for Christmas decoration. Deserves extensive planting.

## RHODODENDRON. Rosebay

Through its blooming season in May and June, no shrub in Nature's garden, the world over, can compare with this. *R. maximum*, our magnificent native sort, frequently reserves a few great blossom-cones for our national holiday. In winter the great leathery leaves of the Rhododendrons form rich banks of green, quite different in character and color-tone from the tints of the conifers. Their summer blossoming, in richness and splendid individuality, can be compared only to that of the magnolias.

Rhododendrons are most effective and most easily cared for when planted in large beds or groups, so that their flowers may be displayed in rich masses. They will grow in any good soil, but are finest in a somewhat sheltered situation

where the soil is deep, well drained and mulched with leaves. They have thick masses of fibrous roots that retain a quantity of earth in lifting, so that removal and transplanting is safe at any season except the short period of their rapid growth in the months of June and July. Should drought occur during the first year after planting, water the bushes liberally. In hot, dry weather water should be given, not daily in driblets, as lawns are sprinkled, but in quantity enough at one time to soak the border to the depth of the top soil, but at comparatively infrequent intervals, once a week or so. The bed should also be mulched with leaves or other material, to prevent evaporation; grass clippings are serviceable, but should not be used in large quantities at any one time, or else they will cause heat and thereby injure the plants. Leaves make the best winter protection, which should be given just before cold weather sets in. In spring dig the greater part of this into the ground, reserving some for a summer mulch.

**IN ADDITION TO THE SEEDLINGS OF CATAWBIENSE** we offer the hardiest and best of the grafted varieties, more expensive and more desirable because they include a full range of distinct colors. Price-lists and estimates will be furnished on application.



Azalea mollis

## DECIDUOUS SHRUBS

"The chief value of shrubbery," says Prof. O. C. Simonds, "comes from its use in an artistic way. In temperate latitudes, from early spring until November leaves and flowers are to be found upon deciduous shrubs; from June until the following spring ornamental fruits can be seen on their branches. Throughout the season the foliage of a well-planted shrubbery will present the greatest variety of color, including, besides yellow, white, gray and purple, all the hundreds of shades of green." We wish to emphasize the necessity of the variety alluded to, not only in colors of foliage, flowers and fruits, but in height and habit of shrubs.

All who desire large shrubs, or shrubs in large quantities, are invited to send for our estimates.

**ALTHAEA.** See Hibiscus

### AMORPHA

**A. fruticosa.** *False Indigo.* This pretty native forms a large, spreading bush, with pinnate leaves and slender spikes of deep violet-blue flowers in June, after the flowers of most shrubs have faded.

**AMYGDALUS** (Flowering Almond)  
See Prunus

### AZALEA

These shrubs bloom in splendid showy clusters early in spring. They are frequently grouped with rhododendrons and the combination is a fine one, as the two shrubs thrive in soil of the same friable character and in sheltered locations. Azaleas like the protection furnished by the rhododendrons' evergreen leaves, and are displayed to best advantage against them.

**A. mollis.** The flowers of this species are produced in large trusses and in different shades of red, white, yellow and orange. They are larger and more perfect than those of the Pontica varieties, something like the early rhododendrons'.

**Azalea Pontica.** *Ghent Azalea.* The flowers of this species are usually fragrant and have a good variety of colors, from white to deep crimson, literally covering the plants in spring. In cold climates they require some protection.



Ghent Azalea



Thunberg's Barberry

## BERBERIS. Barberry

The Barberries are neat, dense-growing shrubs, useful in many ways and beautiful at all seasons. Their masses of white, yellow or orange flowers are showy in spring, their leaves color brightly in fall, their scarlet, blue or black berries are persistent through most of the winter. Their dense growth and sharp spines form a hedge useful as well as ornamental. All sorts are perfectly hardy and will grow in any sunny, well-drained position.

**B. Thunbergi.** *Thunberg's Barberry.* Inimitably neat and dense in growth, yet quite graceful because of its drooping branches. The yellow flowers are followed by scarlet fruits persistent through most of the winter; the leaves color to scarlet and gold in autumn. For low hedges, borders of taller shrubs, planting around the bases of buildings, and a dozen other uses, the landscape gardener finds no other shrubs so good.

**B. vulgaris.** *European Barberry.* Flowers yellow; berries dark red. Of upright growth, with light green foliage.

**var. purpurea.** *Purple Barberry.* A showy and effective shrub, similar to *B. vulgaris* in habit, but with fine purple leaves that contrast beautifully with its flowers and with other shrubs.

## CALYCANTHUS

Carolina Allspice, Sweet Shrub

**C. floridus.** This unique shrub grows rapidly upright, clothing its straight, strong, reddish brown shoots with large glossy leaves, from the axils of which spring odd, double, spicily fragrant flowers of chocolate-red. It is a hardy native shrub that deserves much wider planting.

## CEPHALANTHUS. Button Bush

**C. occidentalis.** One of the best shrubs for damp spots. It makes a dense, elegant growth, forming a rounded mass of dark green, studded with clusters of white, fragrant, ball-like flowers in July. Grows from 3 to 10 feet high.

## CHIONANTHUS. Fringe Tree

**C. Virginica.** *White Fringe Tree.* One of our handsomest wild shrubs, growing to tree-like proportions in favorable locations. Its loose, gracefully drooping panicles of white flowers are quite fragrant, and borne in fringing clusters above very large, deep green leaves of thick, leathery texture. The contrast between leaves and flowers is fine. Leaves yellow in fall.

## CLETHRA

**C. alnifolia.** *Sweet Pepper Bush.* This charming little shrub will flourish in almost any situation, and is delightfully fragrant in September, when covered with long, showy wands of white flowers. The drier and sandier the soil the better it seems to flourish.

## COLUTEA

**C. arborescens.** *Bladder Senna.* Of quick growth in any dry, sunny situation, forming graceful clumps of delicate, acacia-like foliage. Its long racemes of yellow and cinnabar-red flowers appear in summer, and are followed by showy red seed-pods.

**CORCHORUS.** See *Kerria*



## CORNUS. Dogwood

Species of tall growth are described under Deciduous Trees. The shrubby Dogwoods, in many cases, have very pretty flowers, but are valued also for their handsome fruits, leaf variegations and bright-colored bark. If planted in lines or groups against evergreens the bark is very showy in winter, especially if pruned yearly to make the growth of young shoots thicker.

**C. alba, var. Sibirica.** *Siberian Dogwood.*

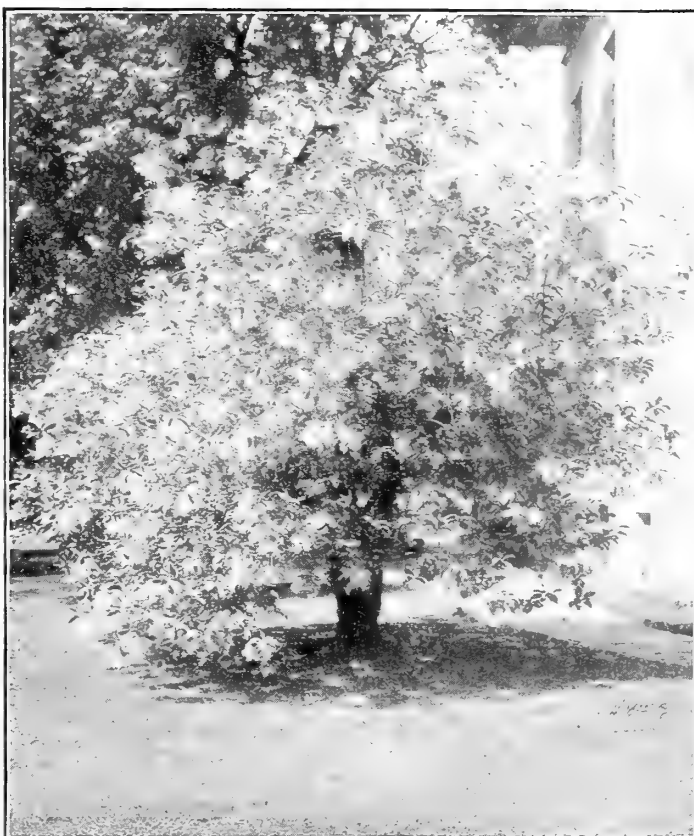
Free-growing and very hardy; forms a small, handsome tree in some situations. Flowers white, clustered; bark a showy deep red.

**var. Sibirica variegata.** A large, spreading shrub, with white flowers in June, variegated foliage and coral red bark.

**var. Spæthi aurea.** Of quick growth, with strong shoots and bright red bark. The leaves are broadly margined with creamy yellow. One of the choicest variegated shrubs.

**C. alternifolia.** Of distinct and curious growth, with branches arranged in irregular whorls, forming flat, horizontal tiers of large leaves. The flowers are fragrant and borne in large clusters; the fruits are dark blue.

**C. Mas.** *Cornelian Cherry.* Dense-growing, with glossy foliage and yellow flowers very early in spring, succeeded by scarlet berries, which persist for a long time, making a beautiful show.



**White Fringe Tree.** See preceding page

**Cornus paniculata** (*C. candidissima* of later scientists).

Very handsome when starred with white flower-clusters, and again in autumn when laden with red-stemmed white fruits.

**C. sanguinea, var. elegantissima variegata.** The leaves are elegantly marked with white, contrasting finely with the deep blood-red bark.

**C. stolonifera.** *Red Osier Dogwood.* A medium-sized, spreading shrub, with dark red bark and white flowers, followed by white berries.



**Flowering Dogwood**

## CORYLUS. Filbert, Hazel

**C. avellana, var. atropurpurea.** *Purple-leaved Filbert.* A distinct and fine shrub for grouping. The leaves are large, rich purple, and hold their color well. Conspicuous in any arrangement.

## CYDONIA. Japan Quince

**C. Japonica.** Very early in spring this fine old shrub is completely covered with dazzling scarlet flowers. The leaves are deep green and glossy, the growth tall, bushy, twiggy, with stout branches armed with fierce thorns. The quince-shaped fruits are quite fragrant. It makes a beautiful flowering and defensive hedge.

**var. alba.** Blush-white single flowers. Like the type in other respects.

## DEUTZIA

The Deutzias vary greatly in height and habit, but all have dainty bell- or tassel-shaped flowers borne thickly in wreaths along their branches in June. The taller sorts are useful for specimens, groups, and the background of shrubberies; the dwarfers for borders, lines near the house, etc.

**D. crenata.** The beautiful white single-flowered species that is a mass of bloom in early June. Often preferred to the double sorts.

**var. fl. pl.** A double form of the type. Handsome and effective. The white flowers are delicately flushed with pink.

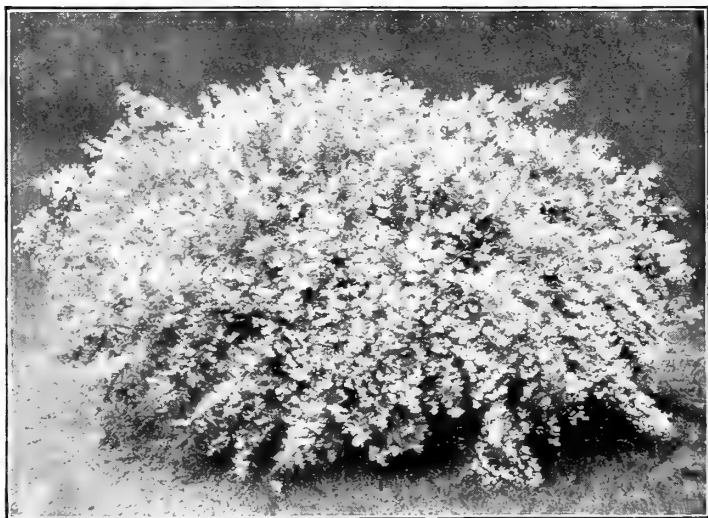
**var. candidissima.** The pure white flowers of this new species are so perfect in shape that they are frequently used in making up designs. The bush is neat and shapely; a fine shrub for almost any situation.

**var., Pride of Rochester.** A showy early and large-flowering sort that blooms in May before the others. The flowers are large, double, white, tinted with rose on the outer edges.

**var. Watereri.** A superb new sort, with large flowers borne in large, loose racemes. They are a pretty pink color and open out quite flat. The shrub is extra vigorous and hardy.

**D. discolor grandiflora.** A beautiful variety from China, with large leaves dark green above, lighter beneath. Flowers are borne in loose corymbs.

**D. gracilis.** *Slender-branched Deutzia.* A neat, dense little bush, of low habit, that blooms in May, wreathing its drooping branches with pure white flowers. Equally valuable for shrubberies and forcing.



*Deutzia gracilis*



*Deutzia, Pride of Rochester*

**var. Boule de Neige.** A handsome new hybrid that resembles *D. gracilis* in habit. Flowers large, creamy white, fairly crowding the upper branches.

**D. parviflora.** A large, erect shrub, yielding a profusion of large-corymbed white flowers in June.

**D. Lemoinei.** An elegant new hybrid of *D. gracilis*, as dwarf and free-flowering, but carrying its pure white, widely opened flowers in erect panicles. Is said to be even finer for forcing.

## DIERVILLA. Weigela

The Diervillas bloom in June, after the lilacs, profusely and showily. They vary as much as the Deutzias in habit, grow rapidly into good specimens and thrive in nearly all soils. Their flowers are large, trumpet-shaped, in all colors from white to red, and clustered thickly along the branches.

**D. florida, var. amabilis.** Very free-blooming and hardy; of good habit and rapid growth, soon forming a fine specimen. Large, deep rose-colored flowers.

**var. alba.** Has all the good points of the type, and pure white flowers.

**var. argentea marginata.** An exquisite dwarf form, with clearly defined, silver-variegated leaves and flesh-pink flowers. For bordering groups of taller shrubs, walks or drives, or planting around house foundations it is very useful. One of the best variegated shrubs.

## DIERVILLA, continued

- D. florida, var. candida.** An extra-choice and vigorous sort, that yields one profuse crop of flowers in June, and lighter ones at intervals all summer.
- var. rosea.** Deep pink flowers.
- var. rosea nana variegata.** Of neat, dwarf habit, with pink flowers and leaves broadly margined with creamy white. Admirably adapted to small lawns and gardens.
- D. floribunda.** A large, fine bush, bright with crimson flowers, that are small and cinnabar-red in the bud.
- var. Loweii.** Produces its dark crimson-maroon flowers in thick wreaths.
- D. Japonica.** Sometimes known as *D. Hortensis floribunda*. Flowers rosy carmine and very abundant.
- var. rubra.** Deep crimson flowers; very showy and fine.

## Diervilla Hybrids

- Chameleon.** Rose.
- Desboisi.** One of the darkest and best of the rose-colored sorts.
- Eva Rathke.** Flowers of dark carmine-red. Distinct and fine.
- Hendersoni.** Deep rose-colored flowers. Unusually robust in growth.
- Pascal.** A choice variety that produces its dark red flowers at intervals through summer.
- Van Houttei.** Clear carmine flowers. Showy and handsome.
- Verschaffelti.** Light rose.

## ELAEAGNUS. Oleaster

The shrubs of this group are desirable for their handsome, silvery leaves, fragrant flowers and showy fruits. They grow well in almost any spot that is sunny and well drained.

- E. angustifolia.** *Russian Olive.* A very hardy and handsome species that in some sections forms a small tree. The leaves are particularly handsome, narrow, like a willow, rich silvery white. The flowers are small, golden yellow and very fragrant, followed by yellow fruits.
- E. longipes.** *Silver Thorn.* A showy shrub of strong, bushy growth, with the silver variegation of the family in the lining of its leaves, which are dark green above. Its fragrant, creamy white blossoms open in April or May; the scarlet, edible fruits hang thickly along its branches and are ripe in July. They make delicious sauces.

## EUONYMUS. Strawberry Tree

- E. Europæus.** Also frequently called *Burning Bush*, because so full of brilliant scarlet berries in autumn after its leaves have fallen. These are its greatest beauty. Four or more bright scarlet seeds cling to a crimson capsule of singular formation. The leaves color a beautiful crimson-scarlet in fall. Stems and leaves are always a dark, polished green.

## EXOCHORDA. Pearl Bush

- E. grandiflora.** One of the finest shrubs of its season, but difficult to propagate and always scarce. Its long, loose sprays of large, pure white flowers open in May, in such profusion as to give the shrub a very rich effect. In the bud form they look like pearls strung on slender threads.



Diervillas

## FORSYTHIA. Golden Bell

These splendid old shrubs light up the garden with glinting masses of yellow very early in spring, usually blooming with the crocuses, which are frequently planted in front of and beneath them. All are of strong growth, entirely hardy, with curving branches that sometimes root at their tips; stems and leaves retain their color until late fall.

- F. suspensa.** Long, curving branches, used for covering arches and trellises.
- var. Fortunei.** The handsome, more erect form generally known.
- F. viridissima.** The flowers of this variety are a little deeper yellow than in other sorts.



*Hibiscus Syriacus* (Althæa)

## HAMAMELIS. Witch Hazel

**H. Virginiana.** Valuable because its fringe-like yellow flowers open so late in fall, often in November, when there are few other blossoms outdoors anywhere. Of compact, bushy habit, with fine leaves that color to yellow, orange or purple in fall and drop before the flowers appear, making them quite conspicuous among bare branches. Likes a moist, sandy or peaty soil and partial shade.

## HIBISCUS SYRIACUS. Althæa

The Altheas bloom late in summer, their varieties showing many rich shades of all colors. They are very hardy, easily cultivated, and will bloom until their growth is cut short by frost. Grown in standard form they make good specimens; planted thickly they are popular for flowering hedges, as they will endure considerable pruning. This should be given in winter. Besides the popular and handsome **Double Red, Rose, Blue, Purple, White, Striped** and **Variegated-leaved**, we offer the following choice named sorts :

**Ardens.** Bluish purple; distinct.

**Cælestis.** Single; flowers blue.

**Comte de Hainant.** Full, double flowers; lilac shaded carmine-purple.

**Duchesse de Brabant.** Large reddish lilac flowers.

**Fleur de Panache.** Double; variegated white and pink, with high, full center.

**Jeanne d'Arc.** Best of the white, double Altheas. Hardy and free-flowering.

**Lady Standish.** Double; blush-white.

**Meteor.** Deep crimson; very bright.

**Princess Vosens.** Semi-double; deep rose, with crimson center and white eye.

**Ranunculæflora.** Double, with full high center, petals notched; blush-white, crimson at base.

**The Banner.** Variegated pink and white.

**Totus albus.** Pure white, single flowers of fine size and great beauty.

**Violacea.** Large flowers of reddish violet.

## HYDRANGEA

Such a showy class of shrubs is naturally well known and very generally planted. *H. paniculata* and its varieties are quite hardy anywhere. The more tender garden varieties need some protection in cold climates. The great flower-heads last for a month or more in perfect condition.

**H. Hortensis.** *Garden Hydrangea.* The fine old sort so much used for porch decoration and Easter forcing. Its flower-heads are pink or blue, according to the soil used.

**var. Otaksa.** Of dwarf, dense habit, with large heads of pink or blue flowers.

**var. ramis pictis.** A red-stemmed variety, carrying immense heads of deep rose or light cherry flowers.

**var. Thomas Hogg.** Great flower-heads of purest white. Very choice and beautiful.

**H. paniculata grandiflora.** *Panicled Hardy Hydrangea.* Familiar to almost every one as the most conspicuous shrub in any collection during midsummer and early fall. Its massive plumes of white flowers bend the branches with their weight, changing finally to pink and green. The shrub shows to best advantage when grown in rich beds or masses and cut back to the ground every spring before growth starts. Grown in this way it produces fewer flower-heads, but much finer ones.

## HYPERICUM. St. John's-wort

**H. Moserianum.** *Gold Flower.* The showiest of all the varieties. The habit is half-pendulous, and the shrub fine for massing or for growing in perennial borders. Its glossy, bright yellow flowers are two or more inches in diameter and tufted with masses of yellow stamens. Has none of the coarseness of the other Hypericums. May be grown in shaded places where few other plants will thrive.



## KERRIA. Globe Flower

**K. Japonica fl. pl.** *Double-flowered Corchorus*. Has polished green leaves and stems, brightened with a profusion of large, rich yellow, double flowers throughout the summer. A handsome, graceful old shrub.

**var. variegata.** Of slender, graceful growth, with small, narrow leaves, distinctly edged with white.

## LIGUSTRUM. Privet

Besides being one of our best hedge plants, the different species of the Privet form interesting groups on the lawn. They are almost evergreen, and of dense, shapely habit. Their white flowers grow in pretty sprays, are fragrant, and followed by berries of different colors. June and July are their months for blooming.

**L. Ibota.** A fine and hardy border shrub, of spreading habit, with curving branches and leaves of grayish green. Its pure white flowers appear in June, to be followed later by bluish black seeds.

**L. ovalifolium.** *California Privet*. A species of unusual beauty that has become the most popular of all hedge plants. For groups and specimens it is equally pretty, and its shining leaves give it value for porch and terrace decoration when grown in standard form. Can be sheared to any desirable form.

**L. vulgaris.** The familiar shrub of old gardens, with leaves of grayish green, white flowers in June, and shining black berries.

## LONICERA

### Bush Honeysuckle

The shrubby Honeysuckles have bright and pretty fragrant flowers, followed by showy berries that last much longer. All are of neat, attractive habit and grow well in ordinary soils.

**L. fragrantissima.** In sheltered situations the dark green leaves of this shrub are retained nearly all winter. Its pretty pink and white flowers are numerous but not very showy. Their fragrance is delightful. Is easily trained into a handsome bush.

**L. Morrowi.** *Japanese Bush Honeysuckle*. The pure white flowers of this sort are quite attractive, but it is valued chiefly for the brilliant red fruits which appear in August and are persistent through the fall.

**L. Tatarica.** *Tartarian Honeysuckle*. One of the best species. Its fine pink flowers contrast beautifully with its own leaves or with those of any of the varieties given below.

**Lonicera Tatarica, var. alba.** A beautiful tall bush, with creamy white flowers in May and June.

**var. grandiflora.** Large, bright red blossoms, striped with white.

**var. virginalis alba.** The large pure white blossoms of this variety are quite fragrant.

## PEONIES

**P. Moutan.** Handsome flowering shrubs, attaining a height of 4 to 6 feet with proper care. The flowers are remarkably striking, of gorgeous colors and enormous in size, often 6 to 8 inches across. Very effective amongst shrubs or in borders, rivaling the rose in beauty of bloom.

**P. Banksi.** Rosy blush; very large, fragrant flowers. One of the best.

See page 102 for Herbaceous Peonies.

## PAVIA. Dwarf Horse-chestnut

**P. macrostachya.** A handsome dwarf species of Horse-chestnut that forms a broad, round bush of deep green, beautiful with upright spikes of white flowers in midsummer.



Panicle Hardy Hydrangea

## PHILADELPHUS. Mock Orange

Also known as *Syringa* in some localities. The shrubs are usually tall, vigorous growers, with large foliage and flowers, and so are valuable for backgrounds, screens, grouping and specimens. Their flowers are milk-white, in most cases, and beautiful for cutting.

**P. coronarius.** *Garland Syringa.* A fine old form that blooms among the earliest and in very graceful sprays. Its large, snowy flowers are delightfully scented.

**var. aureus.** A striking shrub of medium size, with golden yellow leaves that remain bright through the season. Valuable for contrastive grouping.

**var. alba flore pleno.** Has partially double, highly fragrant flowers.

**P. grandiflorus.** The most vigorous species of the group. Its long, irregular branches are clustered with large, slightly fragrant flowers in June.

**P. Gordonianus.** Strong-growing, large-flowered; valuable for its late blooming season in July.

**P. Lemoinei, var. Boule d'Argent.** Of dwarf, compact habit; flowers large and fine; semi-double.

**var. Candelabre.** Blooms with remarkable freedom in dense, erect spikes.

**var. erecta.** A fine variety of erect growth, with good foliage and free-blooming habit; its clusters of fragrant, creamy white blossoms open in June.

**P. Zeyheri, var. speciosissimus.** Of medium growth and graceful habit. The branches curve slightly at the tips, displaying all the better their profuse inflorescence of large, pure white, fragrant flowers. Showiest shrub of its group.



Mock Orange

## POTENTILLA

**P. fruticosa.** *Shrubby Cinquefoil.* A bright-flowered little shrub that thrives in rocky places, or damp ones, where many others refuse to grow. Of upright growth, with narrow, silky foliage and bright yellow flowers from midsummer until frost.

## PRUNUS

### Flowering Plum and Almond

The Flowering Almonds are pretty dwarf bushes that bloom quite early and are very showy in spring. Their slender, leafless, upright branches are entirely hidden by stemless, very double flowers of pink and white.

**P. amygdalus communis, var. alba flore pleno.** Flowers pure white, very double.

**var. rosea flore pleno.** Pretty pink flowers; very double.

**P. triloba fl. pl.** *Double Flowering Plum.* A charming shrub or small tree, of spreading, vigorous growth. Very early in spring before its leaves appear the whole tree is decked in a fleecy cloud of very double, light pink blossoms. Its effect on a still leafless landscape is very bright.

**P. Pissardi.** See Trees.

## RHAMNUS. Buckthorn

**R. catharticus.** The dark foliage-masses of this dense, twiggy bush are relieved by masses of attractive white flowers in June and July. They are followed by showy black fruits. A good hedge plant.

## RHODOTYPUS

**R. kerrioides.** *White Kerria.* An attractive shrub of medium growth, with good foliage and large, single white flowers late in May. The black seeds which follow are odd and showy.

## RIBES. Currant

The Flowering Currants are much prized for their wealth of bright flowers in early spring, and their pervading, spicy odor. The leaves are glossy and turn brilliant colors in fall. All are quite hardy.

**R. aureum.** *Golden Currant.* Fragrant yellow flowers, followed by dark brown fruits.

**R. Gordonianum.** The beautiful gold and crimson blossoms of this hybrid are borne in pendent clusters in May.

**R. sanguineum.** *Red-flowering Currant.* Deep red flowers in graceful drooping clusters. Later than other sorts to bloom.



Spiraea Anthony Waterer

## RHUS

**R. Cotinus.** *Purple Fringe Tree, Smoke Tree.* A unique and conspicuous spreading shrub or small tree, with large leaves. These are overhung in midsummer by cloud-like masses of very light, mist-like flowers, having the appearance of smoke at a little distance.

## ROBINIA. Acacia, Locust

**R. hispida.** An elegant shrub, with light green pinnate leaves and long, graceful clusters of pea-shaped, rose-colored flowers in June, often throughout the summer. When grown in undisturbed masses it is admirable.

**R. Neo-Mexicana.** A similar shrub of more vigorous growth, with bright red flowers.

## SAMBUCUS. Elder

Although these shrubs are attractive in flower and fruit, they are grown chiefly for their beautiful leaves. They grow well in all soils and must have vigorous pruning to keep them in shape.

**S. nigra, var. aureum.** *Golden Elder.* Contrasted with other shrubs the golden yellow leaves of this Elder give heightened effects in tone and color. It can be pruned into a neat, compact little bush.

**var. variegata.** *Variegated Elder.* The leaves are quaintly mottled with white and yellow. Robust and rapid-growing.

**var. laciniata.** *Cut-leaved Elder.* The leaves of this variety are fern-like in formation, and the shrub is of half-drooping habit. One of the finest in cultivation, being especially effective in masses.

**Sambucus racemosa.** *Red-fruited Elder.* Of somewhat stockier growth than the common Elder, with white flowers followed by red fruits.

**var. plumosa aurea.** Beautiful, golden, finely divided fern-like foliage.

**var. tenuifolia.** With foliage similar to the Cut-leaved Elders, on a more compact plant.

## SPIRÆA

All the Spiræas bloom with a riotous extravagance, which makes them quite striking. A good collection of them will give flowers all through the season. There is great variety in their inflorescence, and in the habit of the shrubs, so that there can be no danger of monotony in such a collection. All the species are very hardy, easy to grow in many soils and situations, and will be found useful for specimens, groups, screens, borders, ornamental hedges, etc.

**S. arguta.** A slender dwarf, with branches a snowy mass of clear white flowers in early May.

**S. ariaefolia.** Dense and bushy; covered with white flowers in July.

**S. Bumalda.** A spreading, low bush, with dark leaves brightened by corymbs of pretty, light pink flowers in May, and at intervals all summer.

**var. Anthony Waterer.** A new form of better habit than the type, with larger corymbs of a darker rosy crimson.

**S. Billardi.** Bright with dense panicles of rich pink flowers in July and August, also in fall.

**S. callosa alba.** Of compact growth, with upright branches and bluish green foliage; crowded with large, flat clusters of white flowers nearly all summer.



Old-fashioned Lilacs

## SPIRAEA, continued

- S. callosa**, var. **atrosanguinea**. Dark red or rose flowers in June and July.
- var. **rosea**. Has panicles of pretty rose-colored flowers all summer.
- var. **superba**. Rosy white flowers, produced with great freedom.
- S. Reevesiana**. *Reeves' Double Spirea*. Tall and graceful, with dark bluish green foliage, and large, pure white, double flowers in May and June.
- S. Douglasi**. Spikes of beautiful deep rose-colored flowers in July and August.
- S. opulifolia**. This and the next are sometimes classed under *Physocarpus*. They make a much stronger growth than most sorts, growing rapidly upright, although their branches droop when laden with white flower-umbels in June. For mass-plantings and the background of shrub borders they are very useful.
- var. **aurea**. Of similar habit. The leaves are bright yellow in spring, gradually changing to golden bronze in fall.
- S. prunifolia flore pleno**. *Bridal Wreath*. Among the earliest of the double Spireas to bloom, and very showy at that early time. It is very graceful and plume-like in effect, the branches being covered thickly almost their whole length with small, double white flowers, and sweeping outward in gentle curves.
- S. salicifolia** (*S. paniculata*). *Willow-leaved Spirea*, *Meadow-Sweet*. A charming native species, with crowded panicles of pink flowers in midsummer.
- S. Thunbergi**. *Thunberg's Spirea*. Distinct and most attractive at all seasons, with feathery masses of pure white flowers in early spring; in autumn its narrow leaves change to bright red and orange.

**Spiræa Van Houttei**. *Van Houtte's Spirea*. One of the finest ornamental shrubs in our whole collection, and much used in all good landscape work. Its branches droop with singular grace under their white burden of flowers. The autumn foliage is also very bright and attractive.

## SYMPHORICARPUS

These shrubs are valued for their bright, persistent fruits, and for use as undergrowths in densely shaded places where little else will grow. The two species below are of slender, medium growth, and will flourish under trees, or in almost any soil.

- S. racemosus**. *Snowberry*. Flowers inconspicuous, rose-colored, in June and July; leaves thin, dark green; fruits large, milk-white, clustered, persistent until late in winter.
- S. vulgaris**. *Coral Berry*. Similar to the Snowberry, except that its fruits are red, and that the smaller red berries cluster in thick ropes about the stems, which droop beneath their weight.

## SYRINGA. Lilac

The Lilacs appear to best advantage and are most enjoyable when massed in groups. Such groups are most effective when planted with only a few varieties in but one or two colors. But the groups may be abundant and each one present different colors. They are easily transplanted any time between fall and spring. Rich, moderately moist soil suits them best. After their blooming season, remove the dead flowers, which always give an untidy appearance, and do any necessary pruning. Pruning in winter or spring destroys flowers.

The newer sorts of Lilacs usually bloom freer than the old ones, and have larger flowers in longer



## SYRINGA, continued

plumes, in a multitude of exquisite new shades. We have chosen among the best sorts varieties that will give a good range of color and a succession of bloom from May until midsummer.

**S. Japonica.** *Japan Tree Lilac.* The only tree form in the group; exceedingly handsome when in bloom, and valuable for prolonging the Lilac season at least a month. The leaves are leathery, large and dark; flower-plumes 18 to 20 inches long, white, showy, scentless, carried well above the flowers. Makes a good specimen.

**S. Josikæa.** A variety of fine habit that is valuable for its late bloom. Upright, with stout branches and broad, dark leaves; flowers lilac-purple, large, in large panicles, late in June.

**S. Persica.** *Persian Lilac.* A fine old species with slender branches and narrow leaves; it seldom grows more than a few feet high. Its pale lilac flowers are very fragrant and borne in large, loose panicles. Very graceful.

**var. alba.** *White Persian Lilac.* Of similar habit, with white flowers.

**var. laciniata.** *Cut-leaved Persian Lilac.* Reddish purple flowers; leaves deeply incised.

**S. Rothomagensis.** *Rouen Lilac.* Reddish purple panicles of great size and beauty.

**S. vulgaris.** *Common, or Old-fashioned Lilac.* The familiar species of all fine old gardens, with dense panicles of lilac flowers, still the most fragrant of any.

**var. alba.** *Common White Lilac.* Pure white, very fragrant flowers.

### Single Varieties of Syringa vulgaris

**alba grandiflora.** Very large white flowers in heavy panicles.

**Charles X.** Of exceptionally strong, rapid growth, with large, shining leaves and rather loose trusses of reddish purple flowers.

**Marie Legraye.** The great forcing Lilac. Flowers pure white, in large panicles. Handsome, also, for groups and masses.

**Rubra de Marley.** Rich rosy purple flowers.

**Souvenir de Ludwig Spaeth.** Dark purplish red flowers, large, and in long panicles. A distinct, superb sort that will give great satisfaction.

### New Double Lilacs

The double-flowered Lilacs are more dwarf and compact in habit than single species, but do not bloom quite so freely. Their flowers are of even better substance, however, and last longer.

**Alphonse Laval.** Very large panicles of a beautiful blue color, shading toward violet. Distinct and valuable.

**Belle de Nancy.** Great panicles of brilliant satiny rose, with a lighter, almost white center. One of the most effective sorts.

**Jean Bart.** Rosy carmine flowers in large, compact plumes.

**La Tour d'Auvergne.** Of notably strong growth; flowers violet-purple, of fine size.

**Madame Abel Chatenay.** Pure white flowers in very large panicles.

**Madame Jules Finger.** Large and beautiful satiny rose flowers in strong, erect plumes. Quite fragrant.

**Madame Casimir-Perier.** White flowers in large, graceful panicles. A profuse bloomer. One of the very best sorts.



Double Lilacs



Single Lilac, Charles X. See page 75

#### NEW DOUBLE LILACS, continued

**Madame Lemoine.** Superb white flower-panicles. Fine and showy.

**President Carnot.** Flowers of a dainty lilac shade marked in their centers with white.

**President Grevy.** Flowers of a beautiful blue color, in huge panicles.

### TAMARIX. Tamarisk

The Tamarisks are hardy shrubs of strong but slender upright spreading growth. Their foliage is as light and feathery as asparagus, their flowers delicate and fringing, usually in some warm shade of red or pink. They are valuable for planting near the sea-side, where other shrubs will not grow.

**T. Africana** (*T. parviflora*). Bright pink flowers in slender racemes on shoots of the preceding season's growth.

**Tamarix Africana, var. purpurea** (*T. tetandra purpurea*). Purplish pink flowers in midsummer.

**T. Chinensis.** Flowers pink, in large, loose, usually nodding panicles; often 15 feet high.

**T. Gallica.** Delicate pink or white flowers in slender-panicled racemes; leaves bluish green. An exceedingly pretty species.

**var. Indica.** Pink flowers in longer, more wand-like sprays.

**T. Japonica** (*T. Juniperina*). A handsome Japanese form, with pink flowers in lateral sprays from 1 to 2 inches long on last year's branches.

### VIBURNUM. Arrowroot

This is a showy group of shrubs that usually grow from 5 to 10 feet high, bloom lavishly in spring, bear pretty fruits and color to red or purple in fall. Hardy anywhere.

**V. Japonicum.** Noted alike for its showy cymes of white flowers and fine, long, plicate leaves.

**V. Lantana.** *Wayfaring Tree.* White flowers in large, dense cymes; fruits bright red, changing to a much darker shade with age.

**V. macrocephalum.** Flowers creamy white, in very large, showy cymes, in May and June.

**V. Opulus.** *Cranberry Bush.* A very decorative native shrub, growing about 12 feet high, with clusters of white flowers in May, followed by large and showy scarlet fruits.

**var. sterilis.** *Guelder Rose, Snowball.* Well known; even more showy than the species when covered with its great clusters of white flowers.

**V. tomentosum, var. plicatum.** *Japan Snowball.* Of better habit than the familiar older form, with handsome plicate leaves and more delicately formed, whiter flowers.



Japan Snowball



A Field of Hybrid Perpetual Roses at Our Nursery

## HARDY ROSES

We give much space to Rose-growing. It is one of our leading specialties. The demand for Roses of all kinds increases so greatly every year that we now find it necessary to devote about forty acres of ground and twenty large greenhouses to their culture and propagation.

Only the hardier Roses are given a place in this General Catalogue. A full list of all varieties that we grow will be found in our No. 2 Catalogue, which is sent free to all applicants.

### *Points in Rose Culture*

The Rose delights in an open, airy situation, unshaded by trees or buildings. All the types are very partial to clay loam, but will do well in any ordinary soil if enriched with well-rotted barnyard manure. Dig the soil up thoroughly to the depth of 12 or 15 inches, as rose roots penetrate deep when they have a chance. Do not raise the surface of Rose beds above the surrounding surface. They suffer less from drought when left level with the turf. After the plants have been set out, keep the soil loose to the depth of an inch or two, by frequent stirrings. An occasional soaking with weak manure water is a great help to Roses of all sorts.

**ROSES IN POTS.**—For house culture the Tea, Bourbon and China Roses should be selected. These will give a succession of bloom if treated in the following manner: Drain the pots well with broken bits of crock; mix one part of well-rotted cow manure with two parts of light, friable soil, and press firmly about the roots in potting. Keep well watered during the summer, more scantily in fall and winter. Pinch off all flower-buds until winter, and then give all the sunlight possible. Keep your plants clean and growing. About 60 degrees is the best temperature for window or general indoor culture.

### HYBRID REMONTANT, or PERPETUAL ROSES

These are the June Roses, so admirably suited for garden culture, the formation of Rose beds, hedges and permanent plantations, where hardy varieties of Roses are desired. They are of easy culture and luxuriate in a deep rich soil. They are benefited by mulching of leaves or strawy manure placed around the roots in fall. Prune according to the habit of growth, cutting back close all weak shoots, and shortening the long canes to a convenient length.

In May and June these Hardy Garden Roses are brilliant with large, perfumed flowers of richest



Baron de Bonstetten Rose

## HYBRID REMONTANT, or PERPETUAL ROSES, continued

colors, far excelling the Everblooming class in size and vivid effects. Many of those offered in the list below give occasional flowers through the summer, and again in autumn perfect even finer blossoms than those of June.

**Alfred Colomb.** A superb brilliant crimson rose, of very large, full form, extremely fragrant; blooms freely and grows well.

**Anne de Diesbach.** Very large and fragrant flowers of a rich carmine color. A notably hardy and superior garden Rose.

**Baron de Bonstetten.** Large, deep full flowers of dark crimson-maroon. A splendid, highly scented flower.

**Baroness Rothschild.** A grand pink Rose, of full cupped form and exquisite pale pink color. Short-jointed, very hardy, late-blooming, scentless.

**Brightness of Cheshunt.** Flowers of medium size, produced very freely, of a peculiar, vivid, brownish red; gives a profusion of blooms in fall.

**Captain Hayward.** High-built, large, full, handsome flowers of crimson-carmine. Distinct, vigorous and free-flowering.

**Clio.** A Rose of perfect form and finish, with broad, thick petals, high, full center, beautiful from pointed bud to fully opened flower. The color is a delicate satiny blush, with slightly deeper center. The plant is strong and blooms freely, displaying its great flowers boldly on good stems against large, rich leaves.

**Comte de Paris.** Large, fine and full; glinting red, heightened and shaded with lighter and darker touches of crimson.

**Climbing Victor Verdier.** Bright carmine-rose; of strong climbing habit.

**Coquette des Alpes.** A free-blooming Rose of medium size; white, tinged with pale rose. Exceedingly dainty and attractive.

**Coquette des Blanches.** A finely formed white Rose, with shell-shaped petals evenly and daintily arranged. Of free growth and bloom, with fine dark leaves and almost thornless stems. Newly expanded flowers are sometimes tinted with blush.

**Crimson Queen.** Brilliant crimson, shaded with maroon. Unusually free-blooming.

**Dinsmore.** Large, double flowers of deep crimson; plant dwarf, bushy, truly a perpetual, as it blooms all summer.

**Duke of Edinburgh.** Brilliant crimson-scarlet, shaded with maroon.

**Duke of Wellington.** Large, full, sweet, well shaped; bright velvety red, shaded maroon, except at center, which burns with fiery red.



## HYBRID PERPETUAL ROSES, continued

**Earl of Dufferin.** Rich crimson-maroon, with dark and velvety shadings. The flowers are large, full, globe-shaped, thick-petaled and very fragrant. Grows well and blooms freely, with many handsome buds in autumn. One of the finest dark Roses.

**Eclair.** Large and handsome fiery red flowers.

**Fisher Holmes.** Large, moderately full and finely imbricated flowers of rich, glowing crimson.

**Francois Levet.** A very vigorous and exceptionally free-blooming plant, with well-formed, cherry-red flowers of medium size.

**Eugene Furst.** Velvety crimson, with darker shadings; large, full, shapely, fragrant.

**Gloire de Margottin.** Brilliant, luminous scarlet flowers, of fine size and shape; semi-double, with long, handsome buds; quite fragrant. Vigorous and free-flowering.

**General Jacqueminot.** The famous bud and forcing Rose, quite as well adapted for garden culture by its fine, hardy habit. Its unusually fragrant flowers are a brilliant, glowing crimson, not very full, but large and extremely effective.

**General Washington.** Very large and double; deep crimson-red; opens wide and flat.

**John Hopper.** A fine and free-blooming old sort, with large, full, handsome flowers of fresh, bright rose.

**Jubilee.** A notable Rose of recent introduction, that ranks among the best dark sorts. Deep, flashing crimson, with shadings of velvety maroon; very large, and quite fragrant. Of compact, bushy growth, with good, dark foliage and long flower-stems.

**Jules Margottin.** Bright cherry-red; large, well-formed fragrant flowers; very double and free.

**Louis Van Houtte.** Vivid red, with crimson shadings; large, full; very distinct.

**Mabel Morrison.** A grand white Rose, similar to Baroness Rothschild in all save color.

**Magna Charta.** A hybrid China that is very fine early in the season; bright rose; large and full.

**Madame Gabriel Luizet.** Grand flowers of light silvery pink, produced quite freely; cup-shaped very large, slightly fragrant; distinct, choice.

**Marchioness of Londonderry.** Ivory-white flowers of great size and substance, perfectly formed, on stout stems; highly perfumed; free-blooming.

**Marchioness of Lorne.** Long, handsome buds, opening into large, full, cupped flowers, of rich, shining rose colors, shaded with carmine; perpetual blooming.

**Margaret Dickson.** A large and handsome white Rose, of extra-vigorous growth. Its large petals are thick and shell-shaped, of good substance, tinted

with flesh next the center. The foliage is dark and rich, displaying the grand flowers well.

**Marie Bauman.** Large, full, very fragrant and finely formed; an exquisite shade of carmine-crimson.

**Marshall P. Wilder.** Bright cherry-red; of good size, perfectly double and very fragrant.

**Mrs. J. H. Laing.** An exceptionally handsome and free-blooming Rose, of vigorous growth and fine habit. The color is a soft and delicate shade of pink; the flower is large and well formed, very fragrant and produced on good stems. A variety of especial value, as it blooms continuously in the open ground, and is also excellent for forcing, the buds selling at high prices.

**Mrs. R. G. Sharman-Crawford.** Grandly formed flowers of a warm, delicate shade of pink; pale flesh on the outer petals, deep rose in the center. The large, thick petals are finely imbricated; the flowers are produced on splendid stems. The plant makes a vigorous growth and blooms from early summer until autumn.

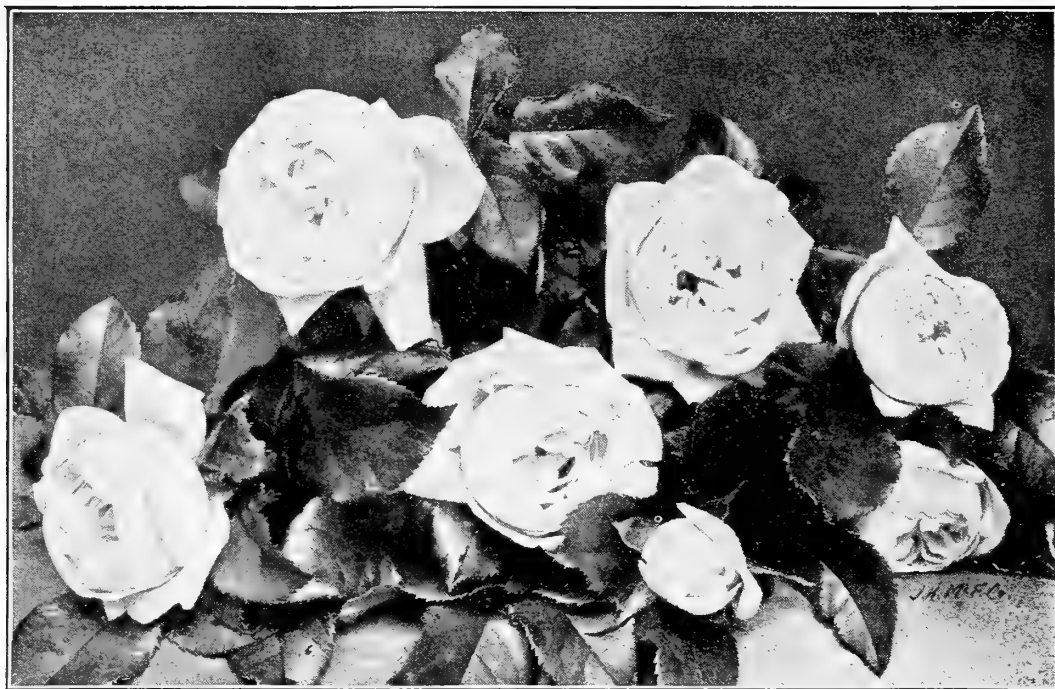
**Paul Neyron.** The largest Rose in cultivation, sometimes called the Peony Rose; color bright, fresh cerise-red. The plant makes a strong, healthy growth, and has clean, glossy foliage; blooms almost without intermission from June until late October.

**Prince Camille de Rohan.** A velvety, blackish crimson Rose, of deep, distinct shade; large, full, very handsome.

**Prince Arthur.** Rich crimson flowers of fine shape; free-blooming from early in the season to autumn.



Jubilee



Margaret Dickson Rose. See page 79

HYBRID PERPETUAL ROSES, continued

**Rhodocanachi.** Large, full, perfectly formed flowers of rosy crimson, on superb long stems. Plant of good habit, free-blooming.

**Roger Lambelin.** Odd and striking flowers of medium size; deep crimson, with petal-margins of blush-white.



Soliel d'Or

**Soliel d'Or.** Yellow is the one desirable color that has been lacking in hardy Roses. This new Rose is the result of a cross between Persian Yellow and Antoine Ducher. It is a fine, strong grower, producing superb conical-shaped buds varying from gold and orange-yellow to reddish gold, shaded with nasturtium-red. The flower is very full, large and globular, the petals in the center being well incurved. It is a robust, vigorous grower, with brownish wood and beautiful bright green foliage. M. Pernet, the raiser of this beautiful Rose, characterizes it as a perpetual bloomer. It was awarded first prize at the Paris Exposition and numerous gold medals throughout Europe.

**Silver Queen.** Silvery blush, with center of delicate rose-pink; large, full, cupped; produced in great abundance.

**Tom Wood.** Cherry-red flowers of fine size and fullness; makes a strong, clean growth, well furnished with heavy foliage and bold, long-stemmed flowers; blooms with especial freedom in autumn.

**Ulrich Brunner.** A Rose of beautiful form and finish, very striking from its color of brilliant cherry-crimson. The bush is vigorous, blooming continually in the open air, and displaying its superb, glowing flowers on good stems.

**Vick's Caprice.** A novel, striped Rose, with ground-color of soft satiny pink, distinctly marked with white and carmine. It is large and full, with beautiful long buds that show the stripes to advantage.

Our stock of Hybrid Perpetual Roses are all grown out in the open, and we supply none but the sturdiest plants

## HARDY CLIMBING ROSES

**Anna Maria.** Light pink, changing to blush; blooms in large clusters.

**Baltimore Belle.** Pale blush, nearly white; very double. Flowers in large clusters, the whole plant appearing a perfect mass of bloom.

**Dawson.** Blooms in large and showy clusters of pink, double flowers, resembling the Ramblers somewhat in general habit.

**Empress of China.** Light red, changing to pink when fully expanded. A free and continuous bloomer; flowers medium size.

**Multiflora Japonica.** This handsome Japanese Rose flowers profusely in large clusters of fragrant, snow-white blossoms. When at length their petals drop, red seed-vessels form, and the bush is again beautiful. Of strong, quick growth, and perfectly hardy anywhere.

**Prairie Queen.** Bright rosy red; large, compact and globular flower; blooms in clusters. One of the best.

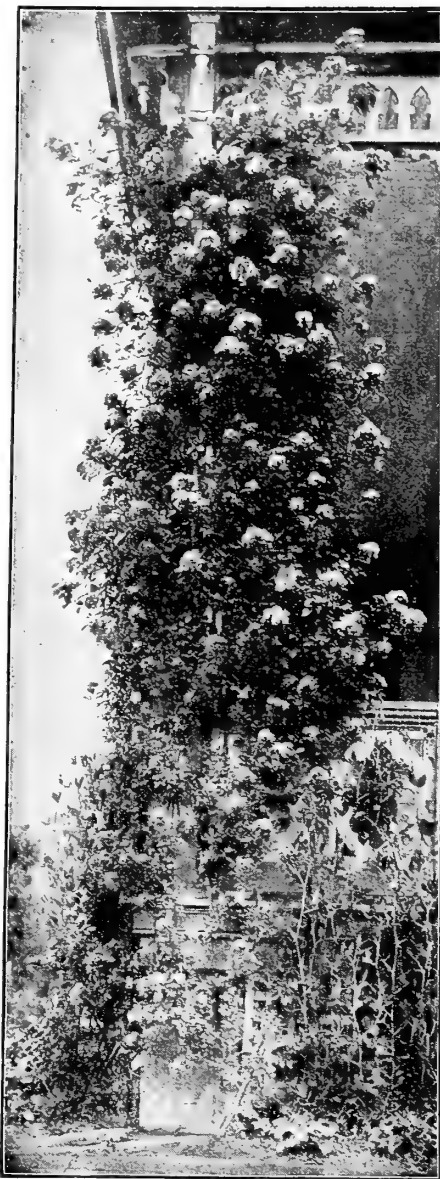
**Ruby Queen.** Ruby-red, with clear white center. Produces a charming effect when the plant is in full bloom.

**Russell's Cottage.** Dark crimson, very double and full; strong grower.

**Setigera, or Prairie Rose.** With large single flowers of rosy pink, blooming in clusters after others are gone.

**Seven Sisters.** Crimson, changing all shades to white. One of the old-fashioned favorites.

**Tennessee Belle.** A strong, vigorous climber and free bloomer; bright rosy blush.



Crimson Rambler

### THE RAMBLER ROSES

**Crimson.** The famous crimson-clustered climber, so extremely effective when grown on pillars and trellises. The plant is a vigorous grower, making shoots 8 to 10 feet long in a season. The foliage is large and glossy; the plant looks like a mass of double crimson flowers when in bloom. The panicles are large and remain perfect for several weeks. Perfectly hardy anywhere.

**Pink.** Similar to others of this group, but with pink flower-clusters.

**Psyche.** White, suffused with salmon-rose.

**Yellow.** Flowers of medium size, in immense clusters, very sweet-scented; a clear decided yellow. The hardiest of all yellow climbing Roses. It is a rampant grower, well-established plants often making a growth of 10 to 12 feet in a season.

**White.** Resembles Crimson Rambler in foliage and habit; flowers pure white.



Multiflora Japonica

## CLIMBING TEA AND NOISETTE ROSES

Although tenderer than the preceding group, these are strong, healthy growers, blooming freely throughout the summer and autumn. The distinguishing characteristic of the Noisette class is their cluster-blooming habit. In the

South, where they stand the winters, nothing can compare with them for beauty of bud and foliage. They are useful for growing in conservatories, pits and green-houses at the North, where they reward the extra care and protection in producing thousands of magnificent blooms.

**Climbing Meteor.** A sport from Meteor. Makes shoots 12 to 15 feet long in a single season. Produces large, velvety crimson flowers in great profusion throughout the entire season. One of the finest climbers grown.

**Marechal Niel.** The noted canary-yellow Rose, with very large, full, globular flowers, of delightful fragrance. Free-flowering; one of the finest yellow tea-scented Roses yet introduced.

**Reine Marie Henriette.** Bright cherry-red flowers, of strong growth; full and well formed; a grand pillar Rose in the South.

**Wm. Allen Richardson.** Orange-yellow, center copper-yellow; very rich.



General McArthur

## THE HARDIEST EVERBLOOMING ROSES

Including Tea, China and Bourbon Varieties

These are the only Roses that really bloom constantly. They begin to bloom early in the season, or almost as soon as planted, and continue all through the summer and autumn months, until stopped by freezing weather, flourishing luxuriantly from Canada to Mexico. The flowers are of beautiful form and fullness, delightful fragrance, and embrace all the lovely shades and colors that Roses ever assume. In the North they require protection during the winter, and, being natives of a more genial climate, must not be expected to survive in the open ground where the temperature falls much below zero. Protection is easy to give, however. Before freezing weather, cut out all soft or unripened wood and remove most of the leaves. Take a little of the soil from one side of the bush to allow it to bend over easily. Bend it over to the ground and cover the whole plant with from 2 to 4 inches of earth. Over this place 4 to 6 inches of leaves, and keep in place with boards or boughs. Defer covering for winter until cold weather fairly sets in, as moderate freezing will not injure the bushes. Treated in this way, three winters out of four they will go through unharmed. Where winters are not severe a few evergreen boughs laid over the beds and a mulch of manure will be sufficient protection. These must be removed, carefully and gradually, before growth begins in spring. A full list of Tea and other Everblooming Roses will be found in our No. 2 Catalogue.

**Bridesmaid.** Clear bright pink of an exquisite shade. Grown chiefly for its large, solid and handsome buds; the stems are good, the foliage glossy. Excellent also for bedding.

**Duchesse de Brabant.** Salmon-rose, with amber shadings,—a rich and peculiar color. The flowers are gracefully irregular and loose when expanded, but have elegantly pointed buds and a pervading



## HARDY EVERBLOOMING ROSES, continued

peach fragrance. Extra vigorous and free in bloom.

**Etoile de Lyon.** One of the hardiest Roses in the Tea section, and so vigorous and free of bloom that it is unsurpassed for bedding. The blooms are very large, double, regularly formed and delightfully fragrant. Pale yellow, with golden center.

**General McArthur.** In all the Rose family we know of nothing that can compare with this in dazzling color, fragrance of flower or profusion of bloom. General McArthur is a Hybrid Tea Rose, as fragrant as a Rose can be, has good-sized flowers and blooms continuously. We have been growing it in our own place for many years, and, seeing it under all conditions, do not hesitate to recommend it to our customers, as the nearest approach to a perfect red Rose. The form of flower and bud is simply superb, and it lasts as long when cut as any Rose we have ever seen. The bud when first opening is the brightest crimson-scarlet, and the flower retains this perfect coloring until it drops its petals. Blooms continuously the whole season through and gives fine stems for cutting. See illustration, on opposite page.

**Golden Gate.** Creamy white, delicately edged and tinged with rose and golden yellow. Grows and blooms freely.

**Madame Joseph Schwartz.** A fine bedding Tea, with clustered, cup-shaped flowers of white, delicately flushed with pink.

**Maman Cochet.** The best pink Tea for bedding, on account of its vigor, hardiness and lavish bloom. Flowers and buds are as large, full, perfectly formed and fragrant as those of any bud Rose grown under glass. The color is an exquisite silvery rose, with shadings of buff and salmon.

**Marie Guillot.** A choice, highly fragrant white Tea, with large, full, elegantly imbricated flowers of lemon-white.

**Marie Van Houtte.** Creamy white, tinted with rose on the outer petals; the whole flower is sometimes suffused with bright pink. Succeeds well outdoors in all sections, giving quantities of fine blossoms all summer.

**Papa Gontier.** A favorite forcing Rose, on account of its large, long buds, but also one of the best Roses for outdoor planting. In bud form its thick, broad petals are dark carmine-crimson, lighter on the inner surface, which shows when they expand.

**Perle des Jardins.** A peerless yellow Rose of peculiarly rich color, varying from canary to golden yellow, in large, full, elegantly shaped buds and blossoms. Whether light or deep, the color has always a richness and delicacy peculiar to this Rose. This is one of the finest yellow Roses grown, and is a standard by which others are judged.

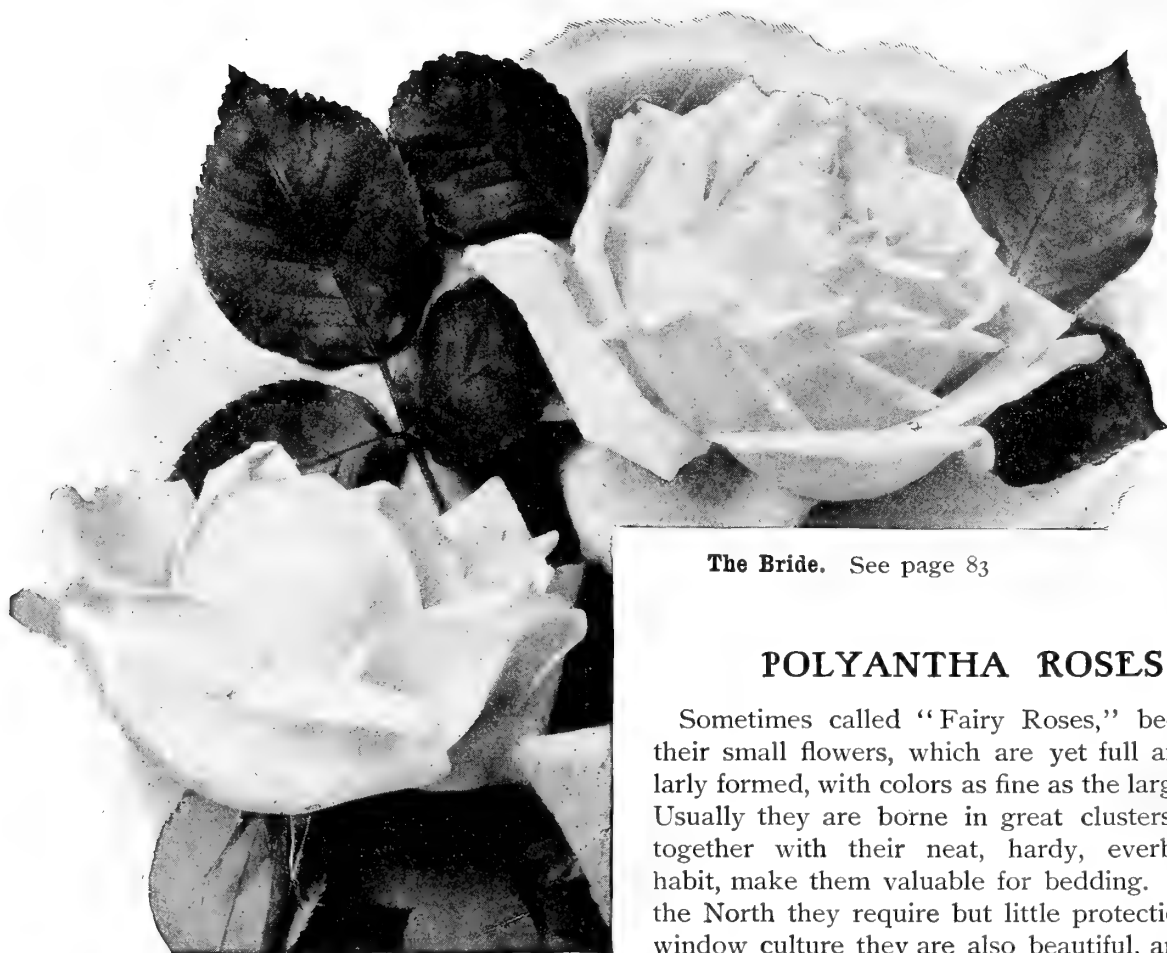
**The Bride.** Most beautiful of the white Tea Roses, and forced in numberless quantities every year. The great, solid flowers remain perfect long after cutting; the stems are long and stiff, the foliage large, dark and glossy.

**The Queen.** A superb white Rose for outdoor culture, producing fine buds and flowers in great abundance all season.



Bridesmaid

Enthusiasts in Rose-growing will find a fund of information in our No. 2 Catalogue. Send for it



**The Bride.** See page 83

## POLYANTHA ROSES

Sometimes called "Fairy Roses," because of their small flowers, which are yet full and regularly formed, with colors as fine as the larger Teas. Usually they are borne in great clusters, which, together with their neat, hardy, everblooming habit, make them valuable for bedding. Even in the North they require but little protection. For window culture they are also beautiful, and being

so hardy they withstand well the conditions surrounding them when grown in the house. Given proper care and attention they can be kept in bloom all winter.

**Clothilde Soupert.** A grand free-flowering Rose; fine for bedding out or pot culture. The flowers are very double and handsomely formed, borne in sprays. Outer petals pearl-white, shading to a center of rosy pink.

**Mignonette.** Clear pink flowers, changing to white; very double. Young shoots frequently carry from 40 to 60 flowers.

**Mosella.** *Yellow Soupert.* A valuable new Polyantha. Dwarf and bushy, a mass of bloom the whole year. Color light yellow, shading to white at edge of petals. Quite hardy; will stand the most severe winter with but slight protection.

**Parquerette.** Pure white flowers of perfect camellia form, in clusters.

**Pink Soupert.** An excellent pink Rose, surpassing even Clothilde Soupert in freedom of bloom. Strong, healthy grower, and a fine hardy bedding Rose. Dainty and effective.



**Mosella**

For many years we have made Rose-growing one of our leading features, and the reputation we enjoy in this branch of horticulture is the result of painstaking care, not only in the choice of varieties, but in our methods of propagation and cultivation. This reputation stands behind every Rose we send out, whether it be on an order for a simple plant or a car-load lot.

## BENGAL AND BOURBON ROSES

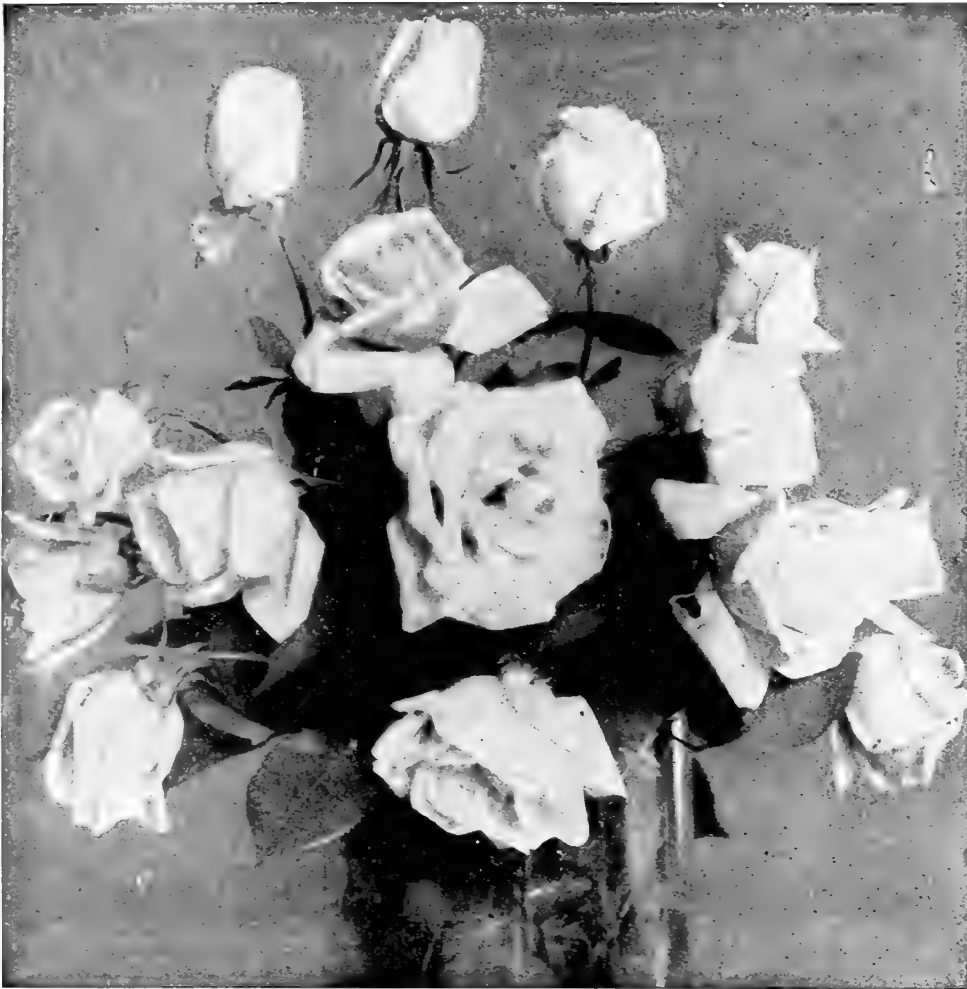
**Agrippina.** Rich, velvety crimson; always full of blossoms. Few Roses are so richly colored and effective when used in masses. Valuable for bedding. Bengal.

**Champion of the World.** Quite as free-blooming, and so hardy as to require little protection in this latitude. The flowers are large, full, fragrant; deep, rich rosy pink.

**Hermosa.** Daintily cupped flowers of a pretty pink color. A fine, fragrant old favorite that is always in bloom.

**Queen's Scarlet.** Rich crimson-scarlet; a very free-flowering bedder.

**Souvenir de la Malmaison.** A superb old favorite, with great flowers of clear flesh-white, double to the center. One of the finest fall-blooming Roses.



Souv. President Carnot

## HYBRID TEAS

**Augustine Guinnoisseau.** White La France. Just a tint of blush clouds its broad petals. The buds and flowers are extra large, full, sweet, and finely formed.

**La France.** Delicate silvery rose, often silvery pink with peach shading. Very large, very double and of superb form. It flowers continually throughout the season. The sweetest and most useful of all Roses, and deservedly a favorite with very many growers.

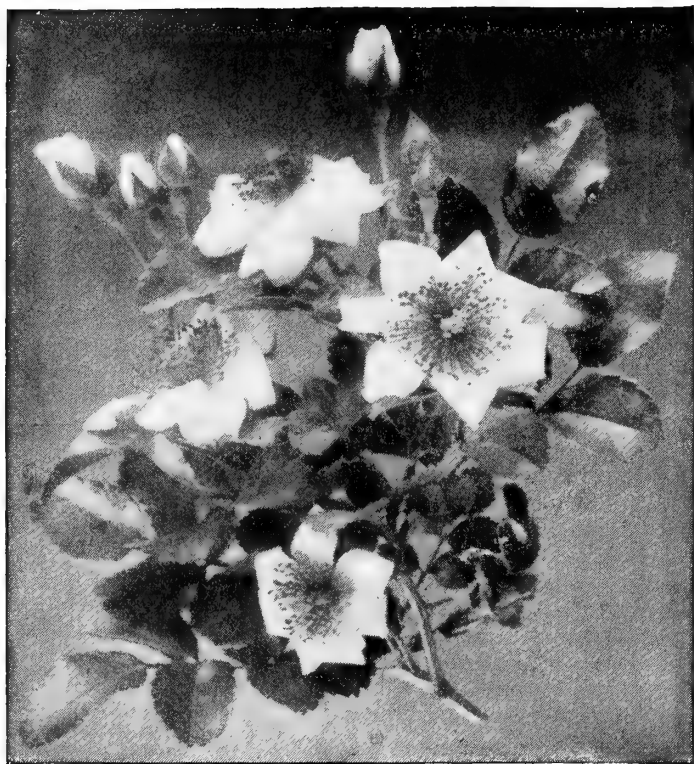
**Meteor.** A rich, dark, velvety crimson, ever-blooming Rose. The flowers are of good size,

very double and perfect in shape, either as buds or when fully opened. The plant is vigorous and remarkably free-flowering. A splendid sort for pot culture, and the best of all Hybrid Teas to bed for summer cut-flowers, as it retains its color well even in the hottest weather.

**Souv. President Carnot.** A strong, clean, healthy grower, with handsome, bronze-green foliage and large, elegant buds. The flower is of fine size and shape, with heavy, thick, shell-like petals. Color delicate rosy flesh, shaded a trifle deeper at the center. A very profuse bloomer.

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We guarantee all our Roses to be true to name



Single Hybrid Wichuraiana Roses

## JAPANESE TRAILING ROSES

Although of naturally trailing habit, *Rosa Wichuraiana* and its hybrids grow vigorously when trained upright. Their most important use, however, is as a ground cover, for which their free, dense growth, evergreen foliage, pretty flower-clusters and red berries fit them admirably.

### ROSA WICHURAIANA

A low, trailing species, its stems creeping on the earth as closely as ivy, and forming a dense mat of very dark green, lustrous foliage. The flowers are produced in greatest profusion, in clusters, after the June Roses are past, and continue during the season. They are single, pure white, with yellow stamens and delicately fragrant. Valuable for covering banks, rockeries, slopes and beds among shrubs. Hardy in all except very cold climates.

#### Wichuraiana Hybrids

**Debutanti.** A new hybrid, with flowers of charming light pink, especially pretty in the bud.

**Manda's Triumph.** Flowers pure white, very double, produced in clusters of from ten to twelve, on small side shoots, literally covering the plant and standing well above the foliage.

**Pink Roamer.** A hybrid of the Sweetbrier, which it somewhat resembles in character of bloom, while the very rampant growth partakes more of the Wichuraiana type. The single flowers are over 2 inches in diameter, bright rich pink, with large, silvery white centers and orange-red stamens; delightfully fragrant.

**South Orange Perfection.** Similar to the preceding in growth. Remarkably free-flowering; when in bloom is a mass of the most perfectly formed double flowers, about 1½ inches in diameter, soft blush-pink at the tips, changing to white.

**Sweetheart.** One of the newest hybrids. Large flowers, pink in the bud, opening white.

**Universal Favorite.** A vigorous grower, with long, branching shoots that are covered with dense, bright green, shining foliage. The flowers are very double, 2 inches and over in diameter, of a beautiful rose color, similar to Bridesmaid, and very fragrant.

## TREE ROSES

The Tree Roses are grafted on hardy stems 4 to 5 feet high, and thus form tree shapes. When in full bloom they are very handsome and are becoming more popular every year as the demand for formal gardens grows. It is very necessary to have varieties which will lend themselves to the severe pruning and training necessary to produce the tree form, and in this shape we offer only the Hybrid Perpetual or hardy class, with flowers of white, pink, scarlet and crimson.



Tree Rose





A Hedge of *Rosa rugosa*. See page 88

## MOSS ROSES

Admired for the beautiful moss covering of the buds. The Moss Rose is strong and vigorous, perfectly hardy, and very desirable for outdoor culture. Most varieties bloom but once in the season, and usually not the first year, but the flowers and buds are very large and handsome, remain in bloom a long time, and are highly prized wherever beautiful Roses are known. They like rich ground and are much improved in beauty and fragrance by liberal manuring and good cultivation.

**Blanche Moreau.** Pure white ; large, full, perfectly formed.

**Countess of Murinais.** Large, pure white ; beautifully mossed.

**Crested Moss.** Deep pink buds, surrounded with a mossy fringe and crest ; fragrant. One of the best.

**Crimson Globe.** Rich, deep crimson.

**Glory of Mosses.** Flowers large ; color pale rose. A strong grower, with fine healthy foliage.

**Henry Martin.** Rich, glossy pink, tinged with crimson ; large, globular flowers ; full, sweet and finely mossed.

**John Cranston.** Deep crimson ; very double.

**Luxembourg.** Bright crimson ; large and mossy.

**Princess Adelaide.** Fine reddish blush ; large and vigorous.

**Perpetual White.** Pure white ; blooms in clusters.

**Paul Fontaine.** Deep crimson ; a constant bloomer.

**Salet.** Light rose ; large and full ; a good autumn bloomer.



Moss Rose

**Mad. Plantier**

## MISCELLANEOUS ROSES

**Harrison Yellow.** Semi-double; bright yellow; very showy and fine; blooms very early; one of the best of its color.

**Mad. Plantier.** A perfectly hardy, pure white, double Rose. The plant grows in fine bush form, and blooms profusely in June. A most desirable cemetery Rose, as it grows luxuriantly without attention.

**Persian Yellow.** Deep golden yellow; semi-double, very fine.

**Rosa lucida.** Handsome foliage and bright pink flowers; fruits red.

**R. Carolina.** *Swamp Rose.* Hardy in wet or dry soil. Shrubby, with pretty pink flowers in July. Red fruits.

**ROSA RUGOSA.** This Japanese Rose forms a sturdy bush, 4 to 5 feet high, covered with large, dark green, glossy foliage, crowned with terminal clusters of 10 to 20 flowers, each 3 inches in diameter. Perfectly hardy. A valuable plant for the hardy border or shrubberies, its large, handsome, scarlet fruits being very ornamental all through the autumn and early winter months. It also makes a splendid hedge, its foliage being impervious to the attacks of insects of all kinds.

**var. rubra.** Beautiful rosy crimson, single flowers.

**var. alba.** Pure white.

**var. Agnes Emily Carman.** Flowers large, semi-double, fine in the bud state; rich, deep crimson. A remarkably free bloomer, and continues in bloom a long time.

**Rosa rugosa, var. Mad. Georges Bruant.** Flowers in clusters; semi-double; buds long and pointed, similar to Niphetos in shape; pure white. Remarkably free-flowering, and hardy where the thermometer does not go below zero. It forms a handsome bush for the lawn and yard, as it retains the heavy thorny canes and glossy leathery leaves of the Rugosa.

**var. Blanc Double de Coubert.** Purest paper white, blooming in clusters of from five to ten flowers; double, very sweet. A strong, rampant grower, having the true Rugosa foliage. Flowers nearly five inches in diameter, produced freely and lasting well. Perfectly hardy.

**var. Belle Poitevine.** Very free and branching; every tip is laden with immense bouquets of large pink Roses. Buds very long; perfume exquisite and unique.

**R. rubiginosa.** *English Sweetbrier.* An old garden favorite that is highly prized on account of the delightful fragrance of its leaves and young branches. It is perfectly hardy, and, once planted, requires very little care. It is particularly fine for hedges, and makes splendid single plants on the lawn.

**Persian Yellow**



Hedge of California Privet, *Catalpa Bungei* in background

## HEDGES AND SCREENS

By using medium-sized plants, a hedge can be made as cheaply as a good board fence, and then, with a little care, it becomes every year more and more a thing of beauty. Such hedges continue as a principal attraction in our best kept places.

For hedge fences that will turn stock, the **Honey Locust** is perfectly hardy, of strong growth, and will flourish in almost any soil. It also readily submits to the necessary pruning, so that it can easily be made to assume any desired shape, and, being covered with long, hard and very sharp thorns, makes a close, firm and almost impenetrable barrier, that will turn any ordinary farm stock. The **Osage Orange** is also very useful where hardy.

Among plants adapted to ornamental hedges, the **American Arborvitæ** and **Norway Spruce** take first place among evergreens. They succeed nearly everywhere, are readily transplanted and can be kept of any desired size or shape. For greater variety, the **Pyramidal**, **Hovey's Golden** and **Siberian Arborvitæ**; or **Red Cedar** and **Hemlock Spruce** may be used for dwarf evergreen hedges; the **Tom Thumb Arborvitæ**, **Mahonia aquifolia**, and, where hardy, the **Tree** and **Dwarf Box** are valuable.

Among the finest shrubs for deciduous hedges are the **California** and **Common Privet**, **Japan Quince**, **Spiræa Van Houttei** and **Bumaldi**, **Tartarian Honeysuckle**, the **Common**, **Purple-leaved** and **Thunberg's Barberries**.

A very beautiful hedge can be made by intermingling flowering shrubs, and clipping or allowing them to grow naturally.

**Shelter-belts** of trees, especially if they are evergreens, make the dwelling house warmer, give comfort to its inmates, diminishing to no inconsiderable extent the consumption of fuel. They also make the outbuildings warmer for stock by night, and the yard by day, thereby saving a large amount of food.

We can supply in quantity, hedge plants, shrubs or vines, of all the sorts mentioned above, and almost any others that may be desired.



# HARDY VINES

Before trees and shrubs can become fairly established on a new place, vines, planted plentifully, may transform it. They will grow, too, where other ornamentals will find no room, displaying their beauty on steep walls, tree trunks and trellises. We offer a select list of the best and most useful.

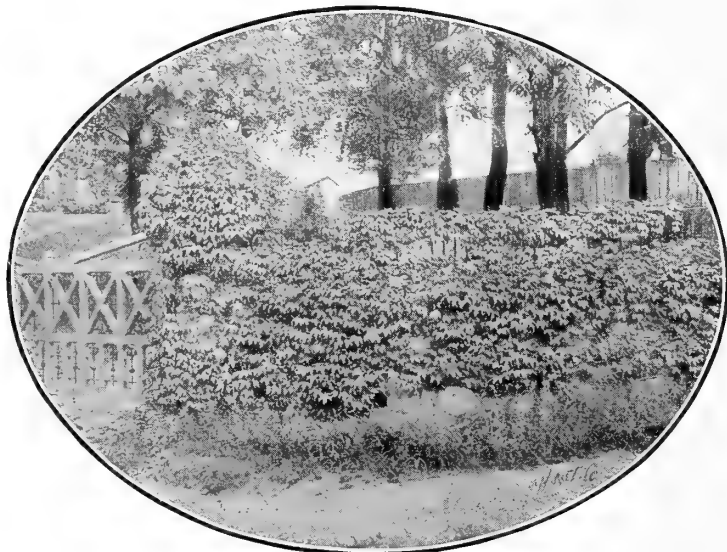
## AKEBIA

**A. quinata.** A beautiful, hardy Japanese vine, with unique foliage and chocolate-purple flowers of delightful fragrance in large clusters. The foliage is never attacked by insects.

## AMPELOPSIS

**A. quinquefolia.** *Virginia Creeper.* The well-known native, with five-parted leaves that change to rich scarlet in fall. Berries black-blue. Entirely hardy anywhere; quick-growing; usually requires some support on walls, although it climbs by means of tendrils and clings to brick and stone surfaces.

**var. Englemanni.** Of denser growth, shorter-jointed and richer in effect. Grows 6 to 10 feet in a season.



**Boston Ivy**

**Ampelopsis Veitchii.** *Boston Ivy.* A beautiful, hardy Japanese species. One of the finest climbers for covering walls, as it clings firmly to the smoothest surface, covering it evenly with overlapping leaves which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to bright shades of crimson and yellow in autumn. When once established it is quite hardy. Give some protection the first year.

## ARISTOLOCHIA

**A. Siphon.** *Dutchman's Pipe.* A magnificent hardy vine of rapid growth, with very large heart-shaped leaves and brownish flowers, resembling in shape a miniature pipe. Splendid for archways or verandas.

**BIGNONIA.** See *Tecoma*

## CELASTRUS

**C. scandens.** *Bittersweet.* A native climber, with handsome glossy foliage and large clusters of beautiful orange-crimson fruits, retained all winter. Very bright in effect and charming for winter house decoration.

**CLEMATIS.** See special list on page 92

## DIOSCOREA

**D. Batatas.** The odd and quaint Cinnamon Vine, most conspicuous in fall when small tubers cluster in the axils of its dark, glossy, arrow-shaped leaves. The white flowers are small but exhale a delightful cinnamon odor.



**Golden-leaved Honeysuckle**



## EUONYMUS

**E. radicans variegata.** An exceedingly pretty and useful little evergreen creeper that mats any surface, to which it clings like the ivy. Its small, silvery green leaves are edged with creamy white, but color to pink in fall. For covering rocky banks, rough walls, tree-trunks, etc., it is a treasure. Used also for vases, baskets and borders of beds.

## HEDERA

**H. Helix.** The well-known English Ivy, still the most beautiful covering that can be given to any rough wall or surface. Leaves of rich, somber green.

## LONICERA

**L. brachypoda aurea reticulata.** *Japan Golden-leaved Honeysuckle.* Of vigorous growth, forming radiant festoons and masses with its clear golden leaves; flowers creamy white.

**L. Japonica.** *Chinese Twining Honeysuckle.* Almost evergreen; flowers nearly white, blooming all summer.

**var. Halliana.** *Hall's Japan Honeysuckle.* Pure white and creamy yellow, very fragrant flowers; in bloom the whole season. Almost evergreen. Besides its ordinary uses as a climber, it is valuable for covering banks, bare places, etc., where grass will not grow.

**L. periclymenum, var. Belgica.** *Dutch Honeysuckle.* Displays its pretty red and yellow flower-sprays constantly.

**L. sempervirens.** *Scarlet Trumpet Honeysuckle.* This and its varieties are among the handsomest species in cultivation. Flowers scarlet and trumpet-formed.

**var. fuchoides.** Coral-red trumpets in large clusters.

**var. flava.** *Yellow Trumpet Honeysuckle.* Large, clustered yellow flowers.

**L. semperflorens.** Flowers yellowish white; fragrant.

## LYCIUM

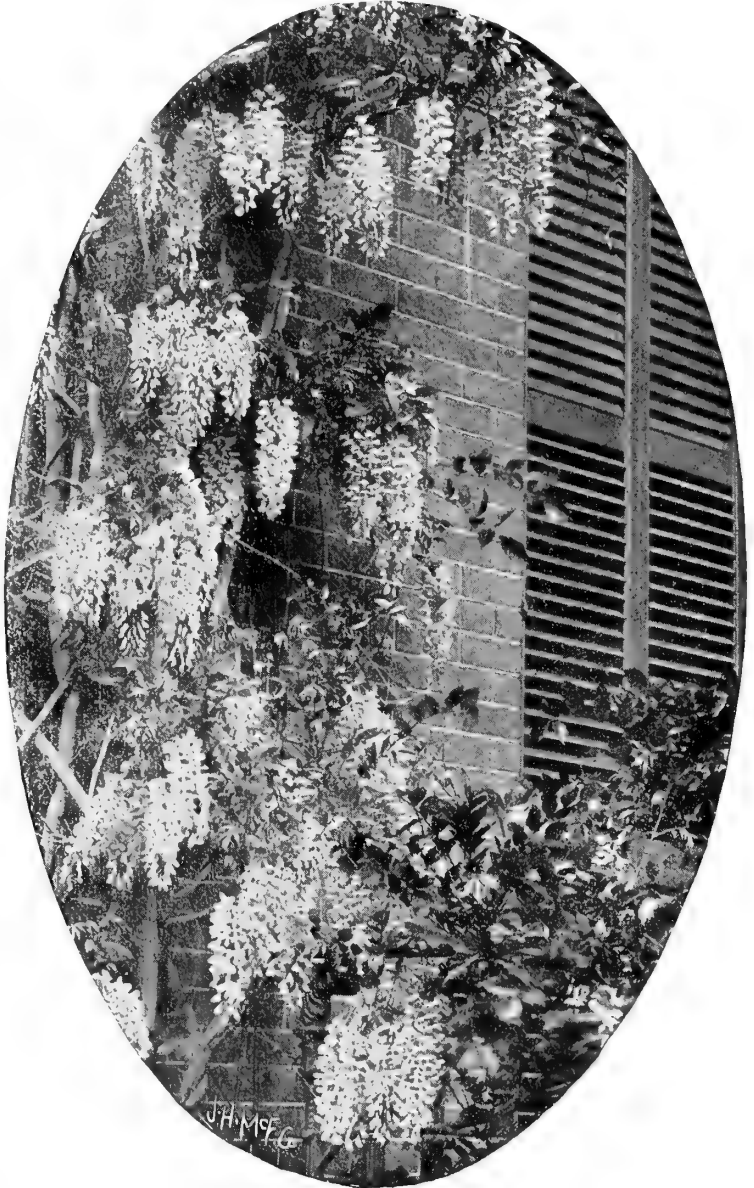
**L. Chinense.** *Matrimony Vine.* Sometimes trained as a shrub. Purple-flowered and showy-fruited. Extra vigorous in growth, bearing prodigious crops of large scarlet berries.

## PERIPLOCA

**P. Græca.** *Silk Vine.* A rapid-growing, beautiful climber, with glossy green, lanceolate foliage. Fine for arbors or trellises.

## TECOMA

**T. radicans.** *Trumpet Creeper.* A robust, woody vine, climbing high and twining tightly, with numerous roots along its stems. Its great, leathery trumpet-shaped flowers of orange-scarlet cluster at the tips of the branches, bending them gracefully with their weight. Leaves light green, large, pinnate. A grand vine for arbors, façades, etc.



Chinese Wistaria

## WISTARIA

**W. magnifica.** Flowers in dense drooping racemes of a pale lavender color.

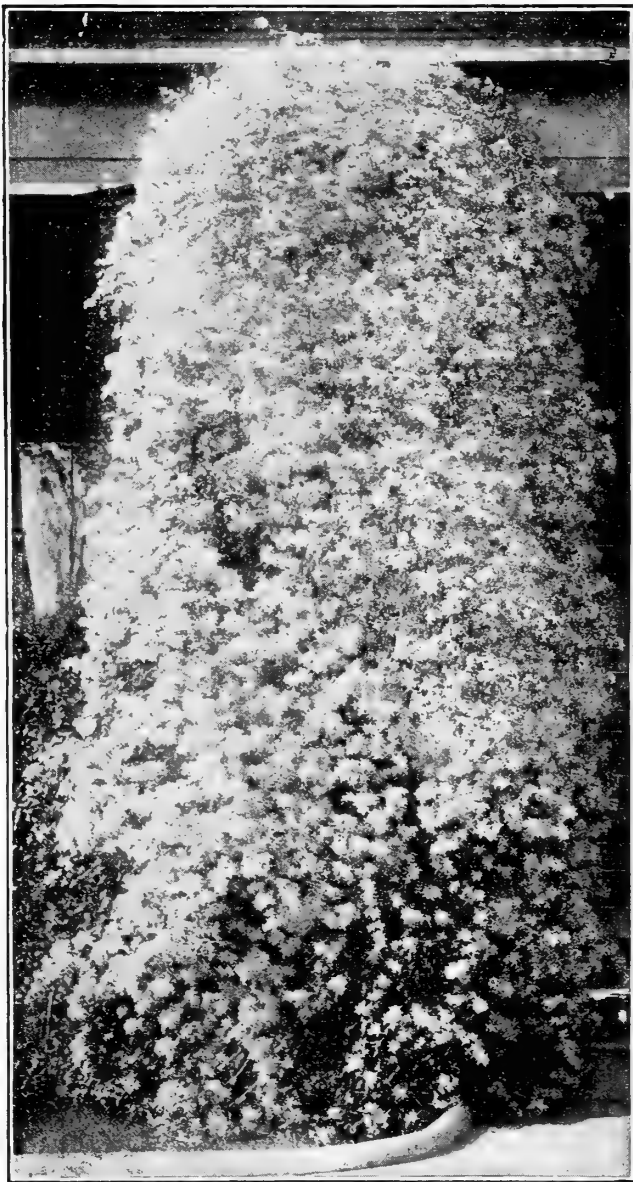
**W. multijuga.** A Japanese species with dark blue flowers, in racemes of astonishing length.

**W. Sinensis.** *Chinese Wistaria.* A most beautiful climber of rapid growth, producing long, pendulous clusters of pale blue flowers. When well established it makes an enormous growth.

**var. alba.** Differs from the Chinese only in having pure white flowers.

# CLEMATIS

Of all the vines used either for shade or decoration, none can compare with the Clematis in its many and varied forms. While the large-flowered kinds are not so good for shade until they attain considerable age, their wealth of bloom makes them the grandest embellishments to the porch known. Of the small-flowered varieties, *paniculata* undoubtedly holds the lead either as a shade producer or for its abundance of bloom. It is a rampant grower in good soil, and the lateness of its bloom, coupled with the exquisite perfume of its flowers, makes it one of the most desirable of all vines.



*Clematis paniculata*

## Large-Flowered Varieties

In this superb family of hardy climbers, many of the varieties have flowers 5 to 7 inches in diameter. They are grand for pillars and trellises, pegged down for bedding and for running over rockwork, old trees and stumps. They delight in rich soil, and a sunny situation, and are perfectly hardy.

**Duchess of Edinburgh.** Fine white, double flowers.

**Gipsy Queen.** Dark velvety purple.

**Henryi.** Creamy white ; large and of fine shape ; a free grower and bloomer.

**Fair Rosamond.** Bluish white, with light bar in center of each sepal.

**Jackmani.** Flowers, when fully expanded, 4 to 6 inches in diameter, intense violet-purple with a rich velvety appearance, distinctly veined. It blooms continually from July until cut off by frosts.

**var. alba.** Vigorous ; flowers large, grayish white. Nearest approach to a white Jackmani.

**Madame Edouard Andre.** Has been called the Crimson Jackmani. The plant is a strong, vigorous grower, and very free in bloom. Color a distinct crimson-red. Entirely distinct from all other varieties.

**Madame Baron Veillard.** Flowers large ; light rose, with lilac shadings.

**Ramona.** A strong, rampant grower and a true, perpetual bloomer, flowers appearing on the last year's growth and on the new shoots, giving an

abundance of bloom all through the season. Color, deep rich lavender.

**Viticella Kermesina.** Flowers of medium size, bright wine-red, without a touch of purple. A strong, free grower, producing shade in a comparatively short time ; a perfect sheet of fine red color when in bloom.

## Small-Flowering Clematis

**Coccinea.** A very handsome hardy climber, bearing thick, bell-shaped flowers of bright coral-red. Blooms with wonderful profusion from June until frost.

**Paniculata.** *Sweet-scented Japan Clematis.* Of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy foliage. The flowers are of medium size, fragrant, pure white, borne in immense sheets in September, when very few other vines are in bloom.

**Viticella.** A rapid climber, with drooping blue or purple flowers through summer and autumn.

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ALL OUR STOCK IS TRUE TO LABEL AND FREE FROM DISEASE

# HARDY PERENNIAL PLANTS

As these yearly come into more plentiful use, we have enlarged our list to meet popular demands. The hardy garden is the only really artistic one. Already our parks and gardens are much more beautiful for the revival of interest in hardy perennials.

## ACANTHUS

**A. mollis.** Grown for its fine leaves, which are among the most familiar art forms. 3 to 4 feet high.

## ACHILLEA. Yarrow, or Milfoil

**A. Millefolium roseum.** Fern-like foliage, low-growing. Blooms in dense heads of bright rose-colored flowers.

**A. Ptarmica, var. The Pearl.** Has very showy heads of pure white double flowers, on strong, erect stems.

**AGROSTEMMA.** See *Lychnis*

## ALTHAEA

Hollyhock

**A. rosea.** Almost indispensable as a background for beds and borders, as their straight, towering spikes are a mass of bright flowers the entire summer. They require a deep, rich soil and will not succeed if planted where water is liable to stand.

We offer a fine collection of double sorts in four distinct colors: **Crimson, Yellow, Pink and White.**

## ANEMONE

Windflower

One of the most showy of all our autumn-blooming herbaceous plants. Blooms freely from August till cut down by frost. In light, somewhat moist, rich soil the plants make a beautiful hardy border or bed. A slight covering of leaves or straw is sufficient protection in most severe winters.

**A. Japonica, var. alba.** Pure white, with yellow centers; large, single, long-stemmed flowers. Fine for cutting.

**var. rubra.** Deep rose, with yellow center.

**Anemone Japonica, var. Queen Charlotte.** Large, semi-double flowers of silvery pink.

**var. Whirlwind.** Semi-double, pure white.

## ANTHEMIS. Chamomile

**A. tinctoria.** *Hardy Golden Marguerite.* Flowers golden yellow, from 1 to 2 inches across; abundant from June until September. Very valuable for cutting. 2 feet high.



Hollyhocks

**AQUILEGIA. Columbine**

These are plants of elegant habit, distinct in foliage and flowers. The latter form a showy crown well above the clear-cut leaves. All the species like partially shaded, well-drained soil. One of the best plants for rockwork, or growing under trees.

**A. cærulea.** A fine Rocky Mountain species, with large flowers, often 4 inches across. The sepals are deep blue, petals pure white, spurs recurved. Splendid for cutting, the flowers retaining their freshness a long time.

**A. chrysantha.** Yellow, of good size, with yellow spurs. Grows 2 to 3 feet high and makes a bush 2 to 3 feet across.

**A. vulgaris, var. alba flore pleno.** Has fine bright green foliage and pure white, double flowers. One of the showiest varieties.

**var. nivea grandiflora.** White, with a profusion of large, snowy flowers for several weeks in early spring.



**Anemone Japonica.** See page 93

**ARMERIA. Thrift, Sea Pink**

**A. maritima splendens.** A showy evergreen plant of dwarf habit, with bright rose-purple flowers in great abundance all summer. Valuable for borders, rockeries, etc.

**ARUNDO. Great Reed**

**A. Donax variegata.** A hardy, broad-leaved, variegated bamboo, with foliage of striped creamy white and green. Grows 6 to 8 feet high; is very handsome and imposing.

**ASCLEPIAS**

**A. tuberosa.** *Milkweed, Silkweed*, etc. A handsome field plant, 2 or 3 feet high, with many showy cymes of intense orange flowers in mid-summer. The seed-pods are interesting.

**ASTILBE. Spiraea**

**A. Japonica.** A handsome plant, with small, pure white flowers in large, feathery panicles. It is extensively used for forcing in winter.

**var. compacta.** Compared with Japonica the individual flowers are much more numerous, the flower-spikes larger and more compact.

**BAPTISIA. False Indigo**

**P. australis.** The *Blue False Indigo*, with deep blue flowers in pretty racemes during June and July. Give a sunny, well-drained position.

**BOCCONIA**

**B. cordata.** *Plume Poppy.* Stately, growing from 6 to 8 feet high, with large foliage and long spikes of white flowers in August.

**BOLTONIA. False Chamomile**

**B. asteroides.** Tall, 4 feet or more in height, with white, aster-like flowers in broad heads. A handsome plant for borders and masses.

**CATANANCHE**

**C. cærulea, fl. pl. alba bicolor.** A pretty summer-blooming perennial, with peduncled flowers of delicate blue, margined with white. Useful for cutting and sometimes used as everlastings.

**CENTAUREA. Knapweed**

**C. montana, var. alba.** A handsome border plant, growing about a foot high and displaying showy white blossoms.

**CHRYSANTHEMUM**

**C. Leucanthemum hybridum.** The new "*Shasta Daisy*" is a perfectly hardy perennial of the easiest cultivation, possessing so many valuable features as to entitle it to a place in every garden. The flowers are extremely large and graceful, averaging about 6 inches in circumference, with three or more rows of petals of the purest glistening whiteness on single strong, stiff, wiry stems, nearly 2 feet long. The blooms, when cut, remain perfectly fresh for two weeks or more.



**CONVALLARIA****Lily-of-the-Valley**

**C. majalis.** A lovely, hardy little perennial, widely planted everywhere for its delicate sprays of drooping white bells and their delightful fragrance. The leaves are a rich dark green; the plant vigorous, soon forming fine clumps. Largely forced in winter.

**COREOPSIS**

**C. lanceolata.** A beautiful hardy border plant that grows 15 to 18 inches high and produces its bright golden yellow flowers in great profusion the entire season. Beautiful masses and a favorite for cutting.

**Lily-of-the-Valley****DELPHINIUM. Larkspur**

**D. formosum.** A strong, robust perennial, 2 to 3 feet high; flowers in abundance; deep azure, with white center. June and July. If the flower-stalks are cut down immediately after the first blooming, another crop of flowers can be obtained in autumn.

**DIANTHUS. Pink**

Valuable border plants, hardy everywhere; blooming freely in May and June. All have a rich clove fragrance. We offer 12 distinct Hardy Garden pinks.

**D. hybrida.** All the best hybrids.

**DICENTRA. Bleeding Heart**

**D. spectabilis.** A hardy perennial with heart-shaped, rose-colored flowers in drooping spikes. One of the best border plants; perfectly hardy and easily cultivated; 2 feet high. Flowers in April or May.

**DICTAMNUS. Gas Plant**

**D. fraxinella.** A very showy plant, forming a bush about 2½ feet in height, having fragrant foliage and curiously shaped flowers.

**var. alba.** White flowers in long spikes.

**var. rubra.** Red flowers.

**DORONICUM. Leopard's Bane**

**D. plantagineum.** Showy deep yellow flowers, borne in great profusion, from 2 to 3 inches in diameter. One of the best of all yellow-flowered herbaceous plants.

**EUPATORIUM**

**E. purpureum.** *Joe Pye Weed.* Familiar and somewhat coarse in appearance, but very effective when rightly used. Tall, with whorled leaves and large, loose heads of rosy purple flowers. In shrubby borders and low grounds it is showy and fine; 7 feet.

**Dianthus**



Gaillardia

## EULALIA

**E. gracillima univittata.** Narrow green leaves with a silvery white midrib. This plant is of most graceful habit. Very useful for decorative purposes and the center of vases ; also an attractive lawn plant. Perfectly hardy, standing our most severe winters.

**E. Japonica variegata.** Long, narrow leaves, striped with green and white, sending up stalks 4 to 6 feet high, terminating with a cluster of flower-spikes.

**var. zebrina.** This is one of the most striking and distinct plants. Unlike most plants with variegated foliage, the striping or marking is across the leaves instead of longitudinally, the leaves being crossed every two or three inches by a band of yellow half an inch wide.

## FUNKIA. Day Lily

The Funkias all make handsome, showy plants with beautiful broad ovate leaves, and large, lily-like, fragrant flowers, in large clusters. They like to grow in moist, shaded places.

**F. Fortunei.** Bold white flowers of delightful fragrance, on good stems above broad, deeply ribbed leaves. Forms handsome clumps.

**F. lancifolia, var. variegata.** Slender leaves, margined with white and pale lilac flowers.

**var. undulata.** Graceful, with narrow leaves having a fluted white edge.

**F. ovata.** The familiar species, with nodding, deep blue flowers.

**var. variegata.** Similar, but with white-edged leaves.

**Funkia subcordata (F. alba).** A fine old species, with large pure white flowers and wide circles of broad leaves.

## GAILLARDIA. Blanket Flower

**G. grandiflora.** A showy plant, with dense tufts of drooping leaves and flower-stems 2 feet high, producing daisy-like blossoms 2 to 3 inches across, of gorgeous colors. The center is dark red-brown, while the petals are orange, crimson and red, shaded into rings of color, thus ringing the petals into three somewhat distinct sections. Delights in a rather poor light soil, and blooms in the most wonderful profusion from June to November.

## GYPSOPHILA

**G. paniculata. Baby's Breath.** Most graceful in effect, with mist-like white flowers that are popular for cutting, as they give an air of grace and harmony to any arrangement.

## HEDYSARUM

**H. multijugum.** Showy plants, from 2 to 4 feet high, with violet-purple flowers in long racemes all summer. Excellent for rocky banks, rock-work, etc.

## HELENIUM

**H. autumnale.** A showy, tall plant, 5 to 6 feet high, with deep golden yellow flowers in massive heads. 2 to 3 feet across.

## HELIANTHEMUM. Rock Rose

**H. mutabile.** Sun-loving, sun-colored flowers, especially valuable as a cover for rocks and thin, dry soil. Continually in bloom and very bright.

**HELIANTHUS. Sunflower**

- H. Kellermani.** Strong grower, making stalks 8 to 12 feet high, Its pretty, single, deep yellow flowers are freely produced late in season.
- H. lœtiflorus.** Rich orange-yellow blossoms about 4 inches across, from July to September.
- H. Maximiliani.** Small and graceful flowers of deep yellow.
- H. mollis grandiflorus.** Lemon-yellow ; one of the best varieties.
- H. multiflorus plenus.** Handsome, bushy plants, with very double flowers of golden yellow. One of the choicest perennials.
- var. Soliel d'Or.** A new quilled sort, with flowers as double and fine as those of a cactus dahlia.
- H. rigidus.** Dwarf ; covered with large yellow flowers.

**HELIOPSIS**

- H. Pitcheriana.** Pretty, daisy-like, yellow flowers that are similar to rudbeckias, but more graceful, and borne on branching plants. Clear yellow, with red-maroon centers. They have good stems and are excellent for cutting.

**HEMEROCALLIS**

- H. Dumortieri.** Very dwarf and compact, producing an endless number of large, lily-like blossoms of a bright orange color. The smallest plant will bloom freely the first year.
- H. flava. Lemon Lily.** A pretty plant, with long, narrow leaves and flower-stalks 2 to 3 feet high. These are crowned by beautiful lemon-colored flowers, 3 to 4 inches in diameter, and delightfully fragrant.
- H. Kwanso fl. pl.** Large, double, copper-colored flowers; in bloom all summer. An excellent plant for the hardy border, and one that grows and blooms well in almost any situation.

**HIBISCUS. Mallow**

- H. Moscheutos.** The fine old *Swamp Rose Mallow*. Large purplish pink or nearly white flowers. Grows 4 to 5 feet high.
- var. Crimson Eye.** Immense flowers of purest white, with large centers of velvety crimson. Blooms profusely, the plants being covered all summer with a wealth of most beautiful bloom.

**HYACINTHUS**

- H. candicans.** A magnificent yucca-like plant, producing, in July and August, a flower-stem 3 to 4 feet high, covered with from 20 to 30 pure white, pendent, bell-shaped flowers.

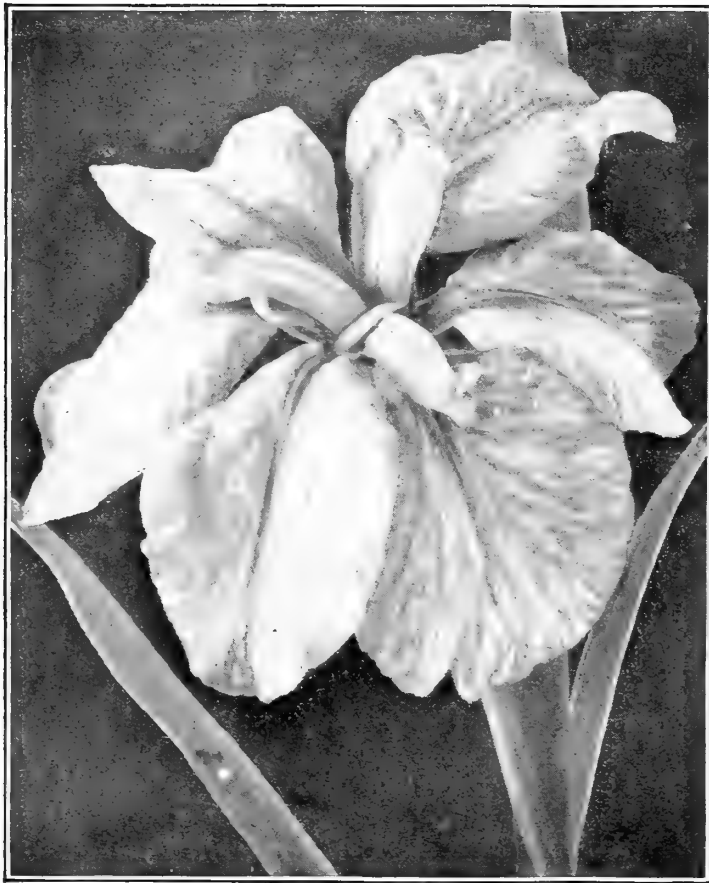
**HYPERICUM. St. John's-wort**

- H. Moserianum.** A grand species of shrubby habit, with large, bright golden yellow flowers, 2 inches in diameter. A continuous bloomer and perfectly hardy.

**IBERIS. Candytuft**

- I. sempervirens.** Of spreading habit ; flowers pure white, covering the plant with bloom. One of the finest border plants ; beautiful with flowers very early in spring. Good for cutting. Evergreen.

**Hemerocallis**



Japan Iris

## IRIS. Fleur-de-Lis

- I. Kämpferi.** *Japan Iris.* The Japanese Iris should be planted in a somewhat cool, moist situation, and in rich soil. Its flowers are quite distinct from those of all the varieties, and will compare favorably with some of the exotic orchids. We offer a fine list of named varieties in our Catalogue No. 2.
- I. Germanica.** *German Iris.* This group blooms early and with wonderful combinations of coloring. Easily distinguished from other Iris by their broad sword-like leaves. We offer eight named varieties. Likes a drier soil than the Japan species.
- I. Pseudacorus variegata.** *Yellow Iris, or Water Flag.* A fine hardy plant, with deep green foliage broadly striped creamy white. Flowers large, bright yellow, slightly veined brown. Delights in a moist situation, but will do well in any rich soil.

## LATHYRUS. Flowering Pea

- L. latifolius.** Very ornamental climbing herbaceous plants, well adapted to grow on garden trellises, to cover walls, stumps, etc. Seldom out of bloom from June until hard frost in fall. A useful plant for cut-flowers. We offer three distinct colors: Red, Pink and White.

## LINUM. Flax

- L. perenne.** *Perennial Flax.* With fine blue flowers in midsummer.
- var. alba.** Delicate white flowers. The two sorts form pretty contrasts when grouped.

## LYCHNIS. Lamp Flower

- L. Chalcedonica.** One of the most showy border plants, throwing out large heads of brilliant vermilion-scarlet flowers.
- L. coronaria** (*Agrostemma coronaria*). *Rose Campion.* A pretty plant, growing from 1½ to 2 feet high, with silvery foliage and showy bright crimson flowers. Will thrive in shaded places.
- var. alba.** White flowers in June and July.
- L. viscaria splendens.** Makes large clumps of almost evergreen foliage. Comes into bloom in early June and continues for six weeks or more. Its flowers are bright crimson; useful for cut-flowers. Without doubt the finest red-flowered hardy perennial.

## MONARDA. Mint

- M. didyma.** *Oswego Tea.* The showiest species in the group, with large heads of fragrant scarlet flowers. Will grow and flourish in any soil and is a beautiful adornment to the flower garden.

## MORINA

- M. longifolia.** A thistle-like plant, with brilliant flowers in whorls near the top of a tall stem, white in the bud, deepening to pink or crimson in the open flower. Distinct and handsome.



German Iris



**MYOSOTIS. Forget-me-not**

The Forget-me-nots are familiar flowers of many gardens,—hardy, easy to grow, with bloom-sprays of exquisite blue. They are lovely little plants for shaded borders.

**M. alpestris, var. alba.** White flowers, in good sprays, freely produced on bushy plants.

**var. Victorizæ.** Azure-blue flowers in large umbels. A choice variety.

**M. dissitiflora.** Similar, but of lower growth. Biennial.

**M. palustris.** Beautiful flowers of light blue. The true Forget-me-not.

**PEONIES.** See page 71

**PAPAVER. Poppy**

**P. bracteata.** A charming species, producing numerous stout, leafy stems, 2½ feet high, with immense deep blood-crimson flowers, having a black blotch at the base of each petal.

**P. nudicaule. Iceland Poppy.** A beautiful class of hardy Poppies, forming tufts of fern-like foliage. We offer in separate colors of White, Yellow and Orange.

**P. orientale.** The brilliant *Oriental Poppy*, with large and flaming flowers of orange-scarlet.

**PENTSTEMON. Beard Tongue**

The Pentstemons bloom persistently through the summer and are found very useful for cut-flowers, or for color masses in the garden. Easily grown in any garden soil.

**P. barbatus, var. Torreyi.** A well-known brilliant-flowered form; scarlet; almost beardless.

**P. lævigatus, var. Digitalis.** A tall border plant, with showy white inflated blossoms on slender spikes.

**P. ovatus.** Blue flowers, changing to purple in July and August.

**PHALARIS. Ribbon Grass**

**P. arundinacea variegata.** Green leaves, striped lengthwise with creamy white. Forms handsome clumps and contrasts well in beds or lines with other grasses.

**PHLOX.** See page 103

**PHYSOSTEGIA. Dragon-Head**

**P. Virginiana.** Forms tall, handsome clumps, with many spikes of rosy purple flowers through July and August. Variable in color.

**var. alba.** Pure white flowers.

**var. speciosa.** Erect, imbricated flowers, in dense, paniced spikes.

**POTENTILLA (Cinquefolia).** See Shrubs

**PLATYCODON. Chinese Bell-flower**

**P. grandiflorum.** A valuable perennial, forming a dense branching bush of upright habit, with neat foliage. From the middle of July until late September it bears a constant succession of handsome, large, bell-shaped, deep blue flowers. Succeeds well in any ordinary soil.



Poppy

**PLUMBAGO. Leadwort**

**P. Larpentæ.** A useful edging plant, bearing rich, deep blue flowers, and continuing in bloom till frost. An unusual color and always attractive

**POLEMONIUM**

**P. cæruleum, var. alba.** A handsome white-flowered form of the fine old Jacob's Ladder, which takes its name from the regular arrangement of pinnate leaflets upon their stem. Even without the large, lobed, bell-shaped flower the plant would be worth growing for its leaves alone.



Rudbeckia

## PRIMULA. Primrose

The hardy garden Primroses are most of them rather low-growing, but among the very finest of all perennial plants. They like a shaded situation and somewhat moist soil. Given these conditions, the clumps broaden into dark green masses of root-leaves, and the plant flowers finely every year. In some gardens they are used for spring bedding, like pansies.

**P. elatior.** The lovely, early-blooming *Polyanthus Primrose*, with large, showy flowers of many colors and variegations.

**var. alba.** Pure white flowers.

**P. veris.** *True English Primrose*, with handsome clusters of very fragrant, light yellow blossoms.

## PYRETHRUM. Daisy, Feverfew

**P. hybridum, var. roseum fl. pl.** Double flowers of deep pink.

**P. uliginosum.** *Great Ox-eye, or Giant Daisy.* A perfectly hardy plant, growing 4 to 5 feet high. Upright in growth, with bright green foliage. White with bloom from midsummer to autumn. The great, snowy flowers have yellow centers, and are from 2 to 3 inches across.

**Shasta Daisy,** see *Chrysanthemum*.

## RUDBECKIA. Cone-flower

**R. laciniata, fl. pl., "Golden Glow."** A distinct, tall-growing hardy perennial, from 6 to 7 feet high. Foliage deeply cut, handsome bright green; flowers very double rich, golden yellow, 2 to 3 inches in diameter, borne on long, smooth stems, forming for the tall plant a solid head of bloom. Excellent for cutting.

**R. sub-tomentosa.** Produces brilliant lemon-yellow flowers in autumn. 5 feet.

## SALVIA. Sage

**S. pratensis.** The handsomest and most generally useful of the hardy blue-flowered Salvias. A good border plant, with whorled spikes of a distinct, fine blue.

## SCABIOSA

**S. Caucasic.** *Mourning Bride.* A beautiful border plant, about 18 inches high, with long-stemmed, lilac-blue flowers, that are fine for cutting. The finest species in its genus. Blooms from June until December.

## SEDUM. Stonecrop

These are unique and showy little spreading plants, with thick, succulent foliage in various odd shapes and beautiful colors. The flowers, sometimes massed in broad clusters, are odd and interesting. Valuable for rockeries, borders and dry banks where nothing else will grow.



Pyrethrum uliginosum

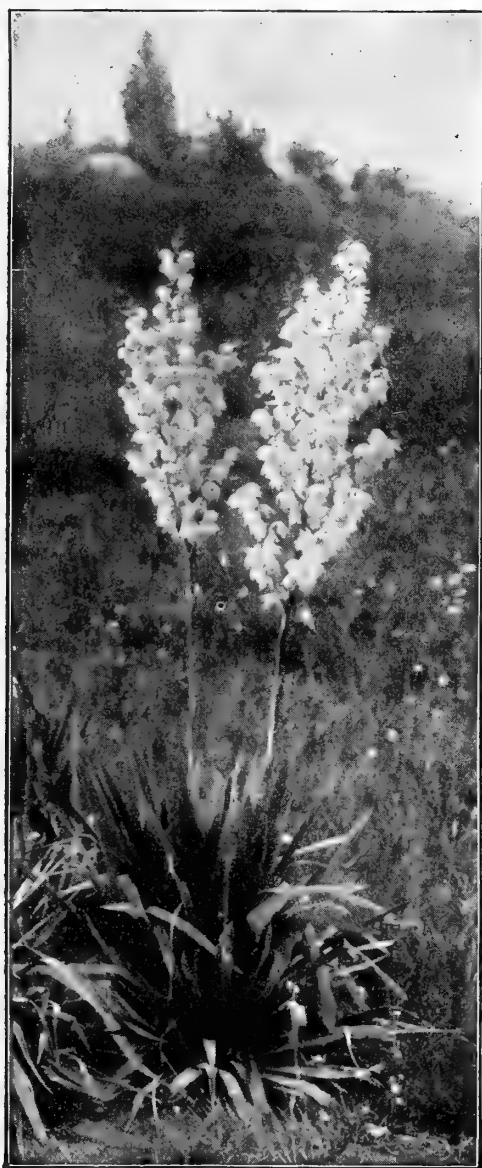
SEDUM, continued

- S. acre.** A pretty evergreen species, with yellow flowers. Used for edgings, etc.
- S. spectabile.** *Showy Sedum.* A general favorite, used for a great variety of purposes. The rose-purple flowers are borne in broad, flat, showy heads. Very fine in autumn.
- var. alba.** White flower-heads.

**SPIRAEA. Meadow Sweet**

These excellent border plants thrive well in any soil, but grow best in rich loam.

- S. Aruncus.** Light green pinnate foliage and immense branched panicles of small creamy white flowers. Blooms early in spring.
- S. palmata.** One of the handsomest herbaceous plants and very hardy; has beautiful palmate foliage, and a succession of showy deep crimson flowers. Very effective.



**Yucca filamentosa**



**Tritoma Pfitzeri**

**STATICE. Sea Lavender**

- S. latifolia.** *Sea Pink.* A native of Russia and exceedingly hardy. The plant grows about a foot high, has broad, luxuriant foliage and slightly recurved spikes of lilac flowers.

**TRITOMA. Red-Hot-Poker**

These are tall and striking plants, of much beauty when well placed and properly grown. The great spikes of red flowers, sent up from the center of a broad circle of green leaves, have quite a rich and tropical appearance. Give some protection in cold climates. Also classed as *Kniphofia*.

- T. Pfitzeri.** Spikes a foot or more in length, thickly set with orange-scarlet to salmon flowers.
- T. uvaria** (*Kniphofia aloides*). Dazzling scarlet-vermilion spikes of the sky-rocket order.
- var. grandiflora.** A variety with larger flowers on longer spikes.

**YUCCA. Adam's Needle**

- Y. filamentosa.** An evergreen, with large, dense, circular tufts of long, stiff, sharp-pointed leaves, from the center of which rise the flower-spikes in early spring. They are 3 to 4 feet high, stout, branching near the top, and supporting hundreds of large, drooping, waxen-white flowers, that remain perfect for several weeks. The effect of a good clump in full bloom is striking and has much the effect of statuary.

## HERBACEOUS PEONIES

That Peonies are as fine and effective in their way as rhododendrons or roses, is now being very generally recognized. They are hardier and more easily cultivated than either of their rivals, and are being used in the same way for bold displays of color. Their flowers are very lasting; some of them are finely finished and exquisitely colored. The Peony societies are doing good work in extending the culture of this grand old flower. Plant in deep, rich, well-prepared soil, covering the buds but an inch or two. Do not expect too much of them the first year. They are a little slow in establishing themselves.

**Agida.** Rich, dark, glowing red; double.

**Albiflora edulis.** White, cream center.

**Anemonæflora.** Rose, buff center.

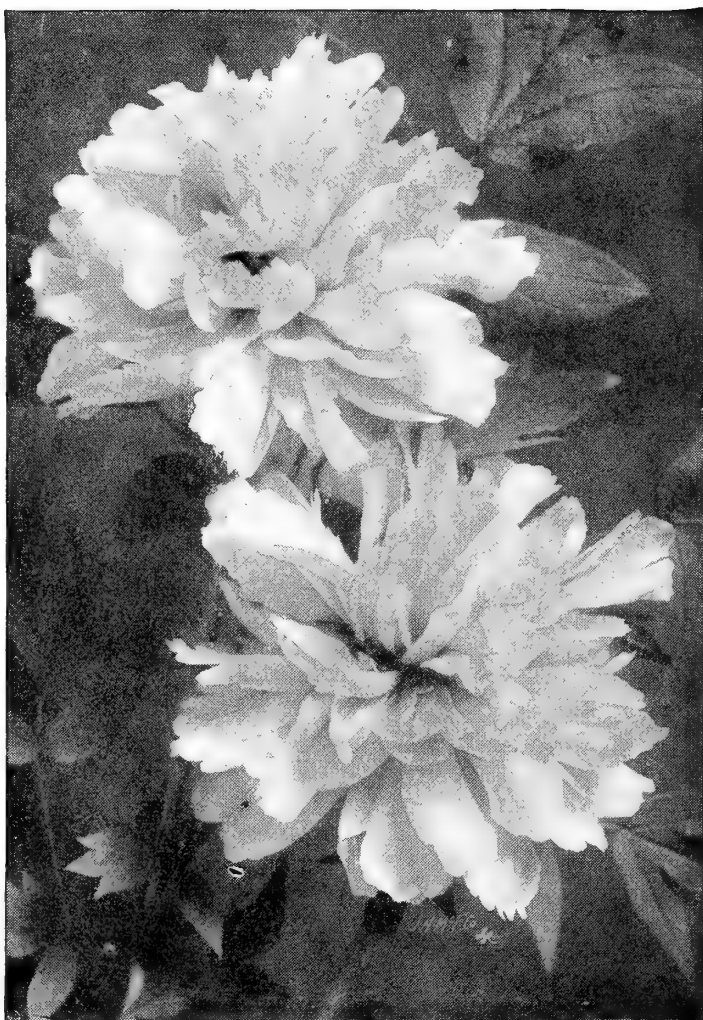
**Bertha Dhour.** Deep rose.

**Candidissima.** Blush-white.

**Chinensis rubra.** Beautiful shade of pink.

**Chinensis alba.** Double; white.

**Chinensis rosea.** Clear, light rose.



**Festiva Maxima Peony**



**Herbaceous Peonies**

**Christophe Achord.** Rose, creamy white center.

**Cuprea superba.** Rose, buff center.

**Daubenton.** Purplish rose.

**Dorchester.** Extra size; light pink.

**Duchess of Orleans.** Pale red and blush.

**Duke of Wellington.** Ivory-white, with creamy center; very large and double.

**Eclatant.** Broad, full flowers of purplish crimson.

**Festiva alba.** Fine, large, pure white flowers; double.

**Festiva maxima.** Extra large; white, center petals tipped carmine.

**Henry de May.** Light crimson; full, shapely flower.

**Isabella Karlitzky.** Delicate rose; very large and full.

**Lady Leonora Bramwell.** Silvery rose.

**L'Esperance.** Mottled rose.

**Louis Van Houtte.** Brilliant red.

**Louis Fugnier.** Light rose.

**Louis Renault.** Bright rose.

**Mad. Breon.** Flesh, with white center.

**Mad. Lebon.** Enormous flowers of cherry-red.





Border of Hardy Phlox

HERBACEOUS PEONIES, continued

- Marion Dhour.** Soft salmon-rose.  
**Marie Lemoine.** Fine, large, double, white.  
**Modeste Guerin.** Cherry-rose ; large and full.  
**Mrs. Lowe.** Blush, center cream-yellow.  
**M. Millet.** Deep rose.  
**M. Thiers.** Rose, shaded purple.  
**M. Valliant.** Light rose.  
**Nimrod.** Deep rose, shading lighter with age.  
**Officinalis alba fl. pl.** Large, double white flowers.  
**Officinalis rosea fl. pl.** Beautiful, clear pink ; double.  
**Officinalis rubra pleno.** Rich deep crimson ; very early and one of the brightest of all dark-colored varieties.  
**Queen Victoria.** The broad guard petals are a pretty blush color ; the center flesh-pink.  
**Prince de Galles.** Carmine-rose.  
**Princess Mathilde.** Rose, tinged violet ; enormous flower.  
**Reevesii.** Pink, white center.  
**Richardson Perfection.** Large ; light flesh, with white center.  
**Rose Quintal.** Pink, cream center.  
**Rubra superba.** Grand red flowers. Very vigorous.  
**Sydonie.** Lilac-rose, with darker center.  
**Tenuifolia fl. pl.** Double scarlet flowers ; foliage fern-like ; very early.  
**Triomphe de Paris.** Outside white, centers sulphur-yellow.

## HARDY PHLOXES

### Paniculata Varieties

No class of hardy plants is more desirable than the Perennial Phloxes. They will thrive in any position and can be used to advantage in the hardy border, in large groups on the lawn, or planted in front of belts of shrubbery, where they will be a mass of blooms the entire season.

All the Phloxes, with the exception of the dwarf varieties, are admirably adapted to cutting. Every stem is topped by a heavy pyramidal flower-cluster. If a few of these are pinched back, or even if the flowers are removed as soon as they have faded, good, smaller spikes will succeed them until frost.

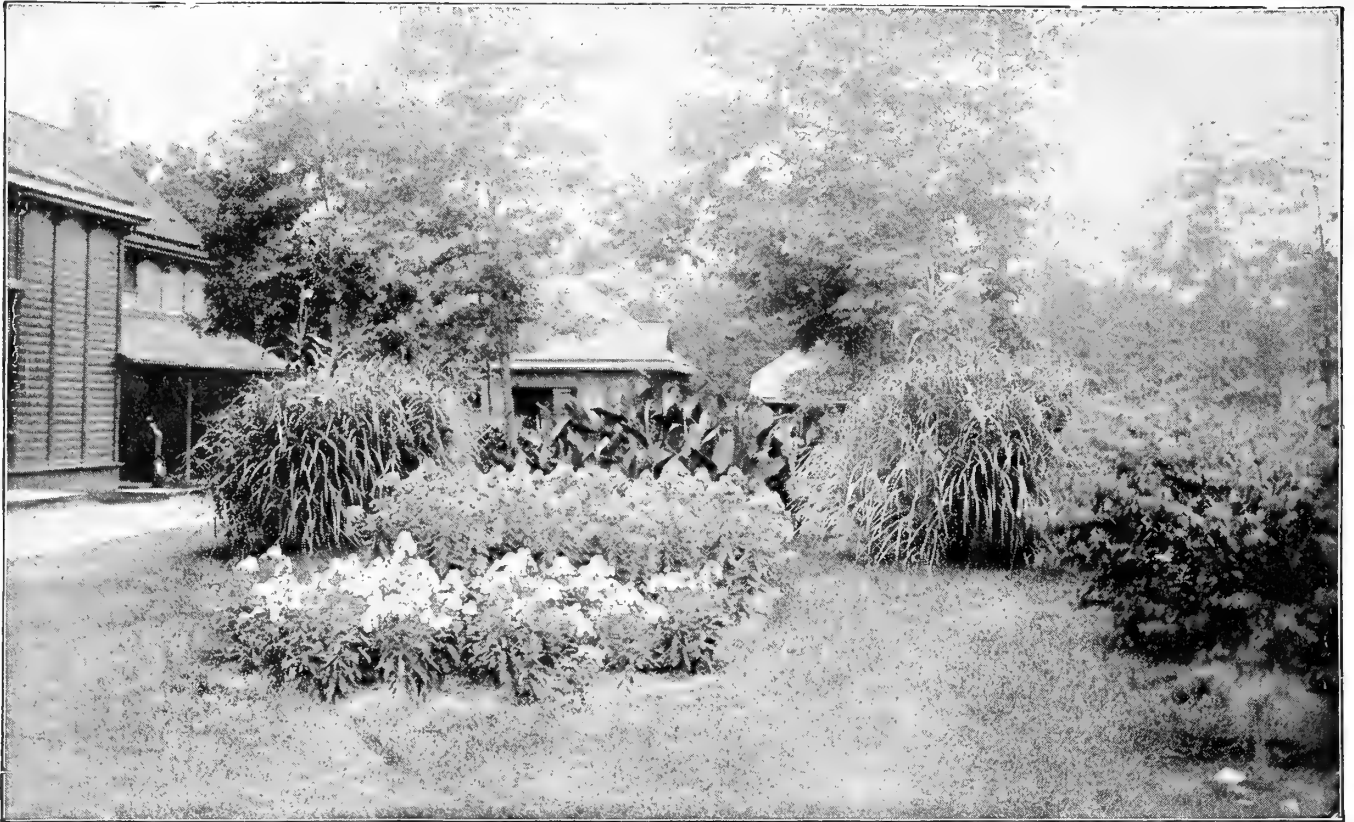
We offer an excellent assortment, selected with great care from the best European collections.

### Hardy Phlox

- Athis.** Light salmon-rose.  
**Amorite.** White, overlaid with lilac.  
**Bouquet de Fleur.** White, carmine eye.  
**Baron de Peuch.** Deep pink.  
**Marion Delorme.** Broad, flat flowers of bright rose.



Hardy Phlox



Hardy Phlox, Cannas and Ornamental Grasses

## HARDY PHLOX, continued

- Bayard.** Rosy lilac.  
**Chameleon.** Varies from rosy scarlet to deep rose.  
**Coquelicot.** Pure scarlet, with crimson eye.  
**Crepsecule.** White, shaded violet, with extra large carmine-purple eye. Late-blooming; flowers quite large.  
**Cross of Honor.** Lilac, margined white; unique.  
**Daniel Lesuerur.** White, splashed lilac.  
**Diplomat.** Large; lilac, with crimson eye.  
**Eclaireur.** Salmon-scarlet, with bright crimson eye.  
**Epopée.** Violet, center bright red.  
**Francis de Neufchateau.**  
**Hector.** Large; light pink.  
**Henri Murger.** Large, pure white flowers with carmine center.  
**H. Menier.** White, suffused with mauve.  
**Jean D'Arc.** Large, pure white flowers.  
**Jocelyn.** Dwarf, with bright salmon-red flowers.  
**Jules Jouy.** Lilac-rose, white center.  
**J. H. Slocum.** Vivid crimson, with dark eye.  
**Lasoliel.** Light crimson, tinged lilac.  
**L'Aiglou.** Bright rosy pink.  
**Lanibore.** Rosy pink, large violet-purple eye.  
**Luminex.** Extra large bright rose, deeper rose center.

- Mattie Hulse.** Pure white, delicate mauve eye; narrow, pointed leaves.  
**Mme. P. Langier.** Salmon-pink, dark eye.  
**Moliere.** Salmon, flushed rose, deeper rose center.  
**Pantheon.** Rosy salmon; very large.  
**Prime Minister.** Rosy white, with center of deep rose.  
**Pluton.** Deep wine-red.  
**Richard Wallace.** White, with violet center.  
**Snowflake.** Pure white.  
**Stanislaus.** Carmine-violet, purple center.  
**The Queen.** Pure snow-white; blooms profusely.  
**The Pearl.** Extra fine pure white.  
**Virgo Marie.** White; large and beautiful.

## Dwarf Species

- P. subulata.** *Moss Pink.* Low-spreading stems and narrow moss-like leaves; flowers pinkish purple, with darker center, produced in wonderful profusion in April and May. Makes fine edgings.  
**var. alba.** A white-flowering variety of the above, very showy when in flower, presenting a mass of bloom like a sheet of snow.  
**P. amœna.** Very early in spring the small plants are entirely covered with pinkish purple flowers.

We make a specialty of supplying the choicest plants for the hardy garden

# Bulbs and Tubers for Spring Planting

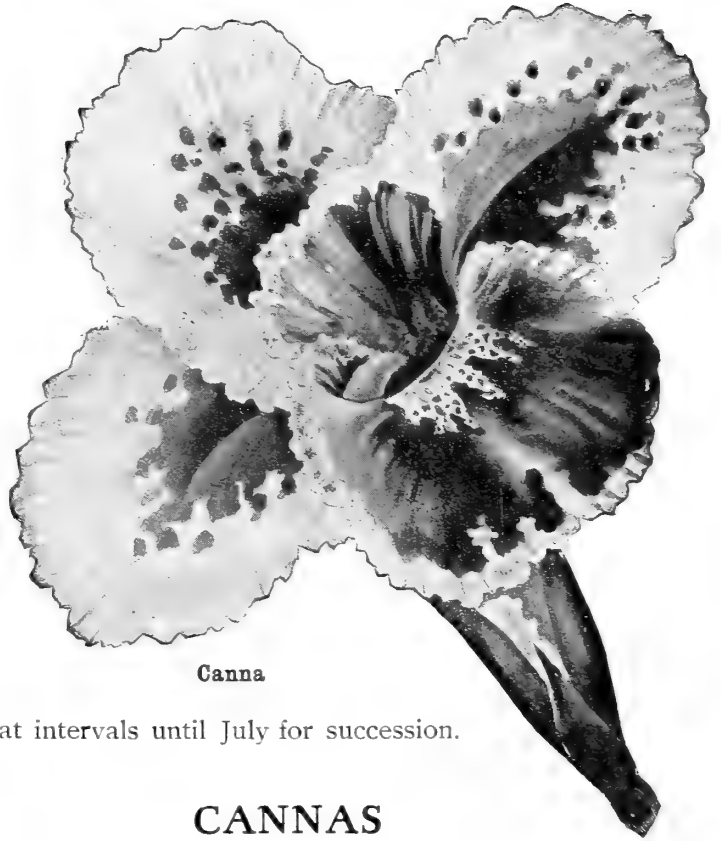
Fuller lists and descriptions of varieties will be found in Catalogue No. 2, together with hints on culture

## AMARYLLIS

- A. formosissima.** *Jacobean Lily.* Velvety crimson flowers early in summer. Planted out in May, in rich ground. The roots are stored like Dahlias during winter.
- A. equestre.** Bright salmon-pink, with distinct snow-white blotch at base of petals.
- A. Johnsonii.** An elegant variety, with crimson flowers, 5 inches in diameter; each petal is striped with white down the center. Flower-stalk 2 feet high, with clusters of three to five blooms.

## GLADIOLUS

We offer the favorite classes and newer varieties, as well as the old. The flowers are of almost every desirable color—brilliant scarlet, crimson, creamy white, striped, blotched and spotted in the most curious manner. Plant thickly in groups or lines for best effects, and at intervals until July for succession.



Canna

## CANNAS

The large-flowered Dwarf Cannas begin to flower a short time after planting and are a mass of gorgeous colors until withered by frost in fall. When grown as pot-plants they are beautiful specimens for the porch in summer and continue to bloom for some time in winter if taken into the house or conservatory. See our Plant Catalogue for list of varieties.

## DAHLIAS

Dahlia societies and Dahlia shows, together with the production of a number of new types, both elegant and exquisite, have again given to this brilliant and stately autumn flower the prominence it deserves. We offer a choice collection of select newer and standard sorts, all of which are fully described in our No. 2 Catalogue.



Dahlias

## TUBEROSES

Grown for their fragrant spikes of heavy, waxen-white flowers. We offer the fine old **Double White**, **The Pearl**, of dwarfer habit, but with even finer spikes of larger white flowers, and the **Variegated-leaved**, which opens single white flowers several weeks earlier than other sorts, and has leaves beautifully variegated with creamy white.



Hyacinths

## Hardy Bulbs for Fall Planting

Fuller lists of species and varieties, with their descriptions, are given in our No. 3 Catalogue, issued in autumn

### CHIONODOXA

**C. Lucilæ.** *Glory of the Snow.* One of the most lovely hardy spring-flowering bulbous plants, producing spikes of lovely azure-blue flowers, with pure white centers. It is perfectly hardy, and may be planted as edgings to beds, or in clumps and masses.

### HYACINTHS

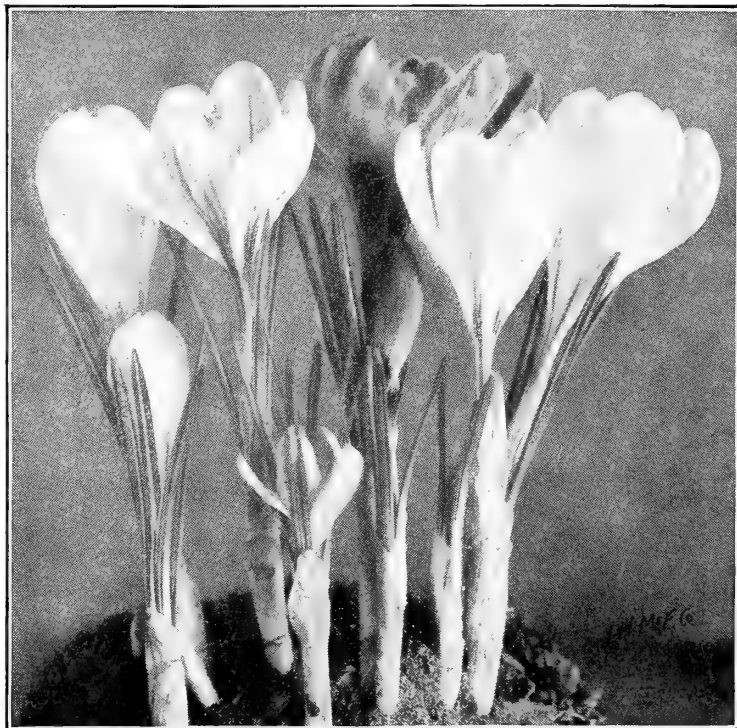
We recommend for forcing large bulbs of single named varieties, with a few double ones for variety, and the charming early Romans. The unnamed sorts will be found quite satisfactory for bedding, and are less expensive. We also give some assortments for carefully planned beds in our fall catalogue.

### CROCUS

Naturalized in the grass, or planted thickly in irregular lines, as a border for taller-growing bulbs, or grown in any way whatever, the Crocus is always a cheery and charming little flower. It opens among the first flowers of early spring, while the snow yet lies white on north hillsides, in a cold, dull time, when its bright colors are much appreciated. **Blue, White, Striped and Yellow.**

### GALANTHUS. Snowdrop

**G. nivalis.** This, the earliest of spring-flowering bulbs, is universally admired for its elegant snow-white drooping blossoms. Plant thickly in groups in some sheltered spot, and the flowers will surprise you before the snow is all gone.



Crocus



## LILIES

No class of plants capable of being cultivated out of doors possesses so many charms ; rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance, they stand prominently out from all other hardy plants. Lilies thrive best in a dry, rich soil, where water will not stand in winter. After planting they require very little care, and should not be disturbed for several years. Established plants bloom more freely than if taken up annually. Plant in groups of five or six, or in large beds.

**L. auratum.** *Gold-banded Lily* of Japan. Flowers very large, delicate ivory-white, thickly dotted with rich chocolate-crimson spots. A bright golden band runs through the center of each petal. The finest of all Lilies.

**L. candidum.** The old-fashioned pure white garden Lily. One of the hardiest.

**L. Batmanniæ.** Rich apricot-yellow ; distinct.

**L. Harrisii.** *Bermuda Easter Lily.* Flowers large, trumpet-shaped, pure waxen white, gracefully formed and delightfully fragrant. The ease with which it can be forced into flower in winter has made it wonderfully popular. For church decoration at Easter.

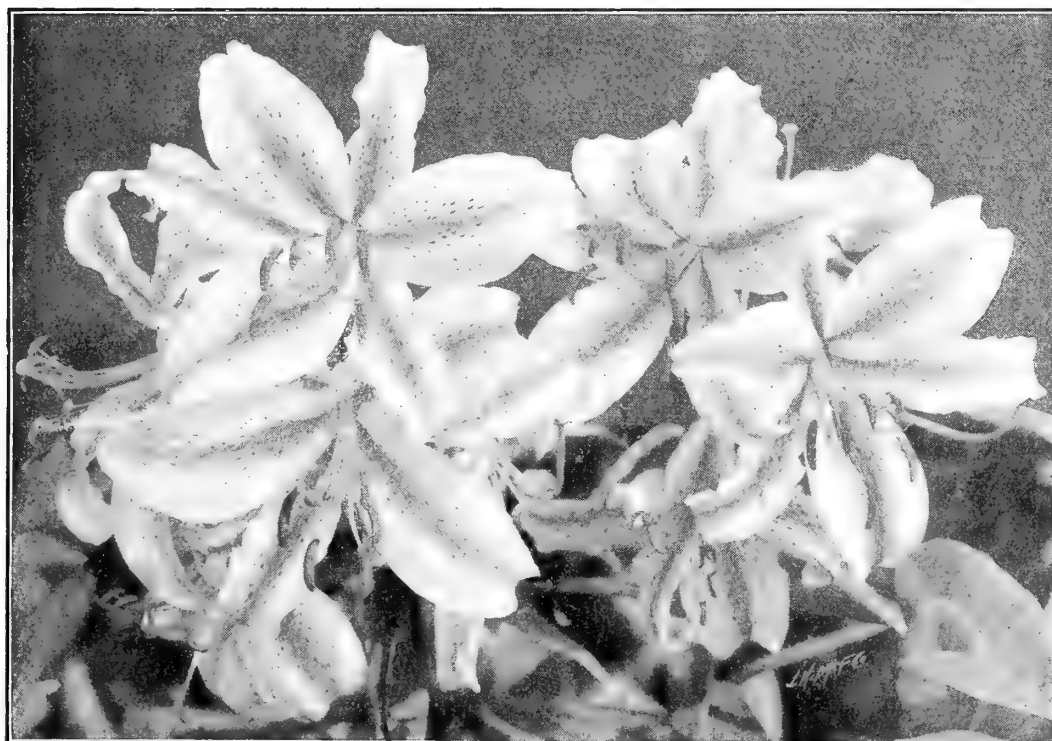
**L. longiflorum.** Large, snow-white, trumpet-shaped ; very fragrant.

**L. Melpomene.** Flowers large and abundant ; rich blood-crimson, heavily spotted.

**L. pardalinum.** Scarlet, shading to rich yellow, spotted brownish purple. Effective when planted in groups.



*Lilium Harrisii*



*Lilium auratum*

**L. tigrinum fl. pl.**  
*Double Tiger Lily.* Orange-scarlet, with dark spots.

**L. superbum.**  
*Turk's Cap Lily.* A native species ; flowers brilliant orange-red.

**L. speciosum.**  
White, shaded with rose, spotted red.

**var. album.**  
White, with a slight rose tint on the ends of the petals.

**L. Wallacei.**  
Japanese ; buff flowers, spotted black.

## NARCISSUS

Some of the Narcissi bloom as early as the crocus, making the garden look very cheery and bright with their gold color in spring. The flowers assume many forms and present many charming combinations of white, gold, primrose, orange, sulphur and pure yellow. Some are quite fragrant, all are very hardy, except the clustered Polyanthus varieties. We list here but a few of the prominent forms, referring to our annual autumn catalogue for fuller lists and descriptions.

### Double Varieties

**N. alba plena odorata.** *The Double White Poet's Narcissus.* Snow-white, exquisitely scented.

**N. incomparabilis.** *Butter and Eggs.* Large double flowers, rich yellow, with orange center; fine for winter flowers. One of the finest.

**Orange Phoenix.** Large, full flowers of mingled orange- and lemon-colored petals.

**Silver Phoenix.** Exquisite regularly fluted blossoms of creamy white and sulphur-yellow.

### Single Varieties

**Ajax princeps.** Yellow, with creamy cup. Dainty and effective.

**Bulbocodium, or Hoop Petticoat.** Odd and unique little flowers, with very much inflated cups of rich yellow.

**Trumpet Major.** Sulphur perianth and large yellow trumpet. A favorite both for forcing and open air culture.

**Poeticus ornatus.** *Poet's Narcissus.* White perianth, with primrose-yellow cup, edged with crimson.

**Obvallaris.** A very early sort, with rich yellow flowers.



Double Narcissus



Narcissus

## TULIPS

These are the most glowingly brilliant and effective of all the early spring flowers. Plant them thickly and lavishly in the fall, and they will reward you with abundant cheer during the cold, dull months of early spring. We offer many varieties. The Duc Van Thols are earliest to bloom. Then come the Single Early and Double Early sorts,—the Parrot, Late Show, and other fine species. For lists and descriptions of all, we refer to our Fall Bulb Catalogue.

# SPRAYING CALENDAR

**EXPLANATION.**—While the number of applications recommended will be found desirable in seasons when the fungi are particularly troublesome, a smaller number may often suffice. Those printed in boldface are of most value, and can generally be made with profit. An **Asterisk** (\*) cautions against spraying with poisons while the plants are in blossom; a **dagger** (†) indicates that there is danger in making application within 3 weeks of the time the fruit is to be used as food.

Plants	1st Application	2d Application	3d Application	4th Application
<b>Apple,</b> Scab, codlinmoth, bud moth, caterpillar, canker worm.	After the blossoms have formed, but before they open, Bordeaux.	Within a week after blossoms fall, Bordeaux and Paris Green.	10 to 14 days later, Bordeaux and Paris Green.	10 to 14 days later, Bordeaux.
<b>Cherry,</b> Rot, aphid, curculio, slug, knot.	As flower-buds appear, but before they open, Bordeaux; for aphid, use Kerosene Emulsion.	When fruit has set, Bordeaux and Paris Green.*	10 to 14 days later, if signs of rot appear, repeat.	10 to 14 days later, Ammoniacal Carbonate of Copper.
<b>Currant,</b> Mildew, worms	As soon as worms are found on lower and inner leaves, Paris Green.	If they reappear, repeat, adding Bordeaux for mildew.†	If worms still trouble, Pyrethrum or Hellebore.*	After fruit is picked, Bordeaux.
<b>Gooseberry,</b> Mildew, worms	As leaves open, Bordeaux and Paris Green.	In 10 to 14 days, repeat with both.	10 to 14 days later, Sulphide Potash, on English varieties.	10 to 14 days later, repeat.
<b>Grape,</b> Fungous diseases, flea beetle.	When first leaves are half-grown, Bordeaux and Paris Green.	As soon as the fruit has set, repeat.*	10 to 14 days later, repeat.	10 to 14 days later, if disease is present, apply Bordeaux.
<b>Peach,</b> <b>Apricot,</b> Rot, curculio, leaf curl, mildew.	Before blossoms open, Bordeaux.	Within a week after fruit has set, Bordeaux and Paris Green.*	7 to 12 days later, repeat.	7 to 12 days later, repeat.
<b>Pear,</b> Leaf-blight, scab, psylla, codlin moth.	Just before blossoms open, Bordeaux.*	Within a week after blossoms fall, Bordeaux and Paris Green.	8 to 12 days later, repeat.	10 to 16 days later, Bordeaux.
<b>Plum,</b> Fungous diseases, rot, curculio, knot.	Within a week after blossoms have fallen, repeat.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux.	NOTE.—If black knots are found on plum or cherry trees, they should at once be cut out and burned.
<b>Quince,</b> Leaf and fruit spots.	When blossom buds appear, but before they open, Bordeaux.	When fruit has set, Bordeaux and Paris Green.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux.
<b>Raspberry,</b> <b>Blackberry,</b> Anthracnose, rust.	Cut out canes badly diseased with anthracnose, and burn. Before buds open, spray with Copper Sulphate solution	When new canes appear, Bordeaux and Paris Green.*	10 to 14 days later, repeat.†	NOTE.—If red rust appears, the entire stool affected should be grubbed out and burned.
<b>Rose,</b> Aphid, worm.	Kerosene Emulsion for aphid.	10 days later, Bordeaux and Paris Green.	Afterwards keep lice and caterpillars off by turning a fine stream from hose on under side of leaves.	

Do not spray with arsenites or copper compounds within 3 weeks of the time the sprayed portions are to be eaten. While there would be no danger of fatal effects resulting, it is best not to run any risk. Bordeaux mixture and other lime compounds should not be used upon rough or full-grown fruits even as late as that time. Not only does the lime disfigure the fruit, but the amount of copper is large.

## INDEX

	PAGE		PAGE		PAGE
Abies . . . . .	58	Calico Bush . . . . .	63	Diospyros . . . . .	20
Acacia . . . . .	73	Calycanthus . . . . .	66	Dogwood . . . . .	46, 56, 67
Acanthus . . . . .	93	Candytuft . . . . .	97	Doronicum . . . . .	95
Acer . . . . .	41	Cannas . . . . .	105	Dragon-Head . . . . .	99
Achillea . . . . .	93	Carolina Allspice . . . . .	66	Dutchman's Pipe . . . . .	90
Adam's Needle . . . . .	101	Catalpa . . . . .	44	Elæagnus . . . . .	69
Æsculus . . . . .	42	Catananche . . . . .	94	Elder . . . . .	73
Akebia . . . . .	90	Celastrus . . . . .	90	Elm . . . . .	55, 57
Ailanthus . . . . .	43	Celtis . . . . .	45	Empress Tree . . . . .	50
Alder . . . . .	43	Centaurea . . . . .	94	Eulalia . . . . .	96
Almond . . . . .	28	Cephalanthus . . . . .	66	Euonymus . . . . .	69, 91
Alnus . . . . .	43	Cerasus . . . . .	45, 56	Eupatorium . . . . .	95
Althæa . . . . .	70, 93	Cercis . . . . .	45	European Bird Cherry . . . . .	51
Amaryllis . . . . .	105	Chamæcyparis . . . . .	59	Exochorda . . . . .	69
Amelanchier . . . . .	43	Chamomile . . . . .	93	Fagus . . . . .	47, 56
American Holly . . . . .	64	Cherries . . . . .	25, 26, 43	False Chamomile . . . . .	94
Amorpha . . . . .	65	Chestnut . . . . .	28	False Indigo . . . . .	65, 94
Ampelopsis . . . . .	90	Chinese Bell-flower . . . . .	99	Feverfew . . . . .	100
Anemone . . . . .	93	Chinese Sumach . . . . .	43	Filbert . . . . .	29, 67
Angelica Tree . . . . .	43	Chionanthus . . . . .	66	Fir . . . . .	58
Anthemis . . . . .	93	Chionodoxa . . . . .	106	Flax . . . . .	98
Apples . . . . .	5-11	Chrysanthemum . . . . .	94	Fleur-de Lis . . . . .	98
Apricots . . . . .	27	Cladrastis . . . . .	45	Flowering Almond . . . . .	72
Aquilegia . . . . .	94	Clematis . . . . .	92	Flowering Crab . . . . .	52
Aralia . . . . .	43	Clethra . . . . .	66	Flowering Pea . . . . .	98
Arborvitæ . . . . .	62, 63	Coffee Tree . . . . .	48	Flowering Plum . . . . .	72
Aristolochia . . . . .	90	Columbine . . . . .	94	Flowering Thorn . . . . .	46
Armeria . . . . .	94	Colutea . . . . .	66	Forget-me-not . . . . .	99
Arrowroot . . . . .	76	Cone-bearing Evergreens . . . . .	58-63	Forsythia . . . . .	69
Arundo . . . . .	94	Cone-flower . . . . .	100	Fraxinus . . . . .	47, 56
Asclepias . . . . .	94	Convallaria . . . . .	95	Fringe Tree . . . . .	66
Ash . . . . .	47, 56	Coral Berry . . . . .	74	Fruits for Orchard and Garden . . . . .	5-27
Asimina . . . . .	43	Coreopsis . . . . .	95	Funkia . . . . .	96
Asparagus . . . . .	39	Cornus . . . . .	46, 56, 67	Gaillardia . . . . .	96
Astilbe . . . . .	94	Corylus . . . . .	67	Galanthus . . . . .	106
Azalea . . . . .	65	Crab Apples . . . . .	11	Garland Flower . . . . .	63
Baby's Breath . . . . .	96	Cratægus . . . . .	46	Gas Plant . . . . .	95
Baptisia . . . . .	94	Crocus . . . . .	106	Ginkgo . . . . .	54
Barberry . . . . .	66	Cupressus . . . . .	59	Gladiolus . . . . .	105
Basswood . . . . .	55	Currants . . . . .	32, 33, 72	Gleditschia . . . . .	47, 56
Beard Tongue . . . . .	99	Custard Apple . . . . .	43	Globe Flower . . . . .	71
Beech . . . . .	47, 56	Cydonia . . . . .	67	Glory of the Snow . . . . .	106
Berberis . . . . .	66	Cypress . . . . .	59	Golden Bell . . . . .	69
Betula . . . . .	43, 44, 56	Cytisus . . . . .	47	Golden Chain . . . . .	47
Birch . . . . .	43, 44, 56	Dahlias . . . . .	105	Gold Flower . . . . .	70
Bittersweet . . . . .	90	Daisy . . . . .	100	Gooseberries . . . . .	34
Blackberries . . . . .	37	Daphne . . . . .	63	Grape-vines . . . . .	30-32
Bladder Senna . . . . .	66	Day Lily . . . . .	96	Great Reed . . . . .	94
Blanket Flower . . . . .	96	Deciduous Cypress . . . . .	55	Gymnocladus . . . . .	48
Bleeding Heart . . . . .	95	Deciduous Shrubs . . . . .	65	Gypsophila . . . . .	96
Bocconia . . . . .	94	Deciduous Trees . . . . .	41	Halesia . . . . .	48
Boltonia . . . . .	94	Deciduous Trees of Drooping		Hamamelis . . . . .	70
Box . . . . .	63	Habit . . . . .	56	Hardy Bulbs for Fall Planting . . . . .	106
Broad-leaved Evergreens . . . . .	63	Delphinium . . . . .	95	Hardy Perennial Plants . . . . .	93
Buckthorn . . . . .	72	Deutzia . . . . .	68	Hardy Vines . . . . .	90-92
Bulbs and Tubers for Spring		Dewberry . . . . .	37	Hazel . . . . .	67
Planting . . . . .	105	Dianthus . . . . .	95	Hedera . . . . .	91
Bush Honeysuckle . . . . .	71	Dicentra . . . . .	95	Hedges and Screens . . . . .	89
Button Bush . . . . .	66	Dictamnus . . . . .	95	Hedysarum . . . . .	96
Buttonwood . . . . .	50	Diervilla . . . . .	68, 69		
Buxus . . . . .	63	Dioscorea . . . . .	90		



## INDEX, continued

	PAGE		PAGE		PAGE
Helenium . . . . .	96	Maidenhair Fern Tree . . . . .	54	Primrose . . . . .	100
Helianthemum . . . . .	96	Mallow . . . . .	97	Primula . . . . .	100
Helianthus . . . . .	97	Maple . . . . .	41	Privet . . . . .	71
Heliopsis . . . . .	97	Matrimony Vine . . . . .	91	Prunus . . . . .	51, 72
Hemerocallis . . . . .	97	Meadow Sweet . . . . .	101	Ptelea . . . . .	52
Hemlock Spruce . . . . .	63	Mespilus . . . . .	43	Purple Fringe Tree . . . . .	73
Hercules' Club . . . . .	43	Milfoil . . . . .	93	Pyrethrum . . . . .	100
Hibiscus . . . . .	70, 97	Milkweed . . . . .	94	Pyrus . . . . .	52, 57
Hickory . . . . .	29	Mint . . . . .	98		
Hollyhock . . . . .	93	Mock Orange . . . . .	72	Quercus . . . . .	53
Honey Locust . . . . .	47	Monarda . . . . .	98	Quinces . . . . .	15
Honeysuckle . . . . .	91	Morina . . . . .	98		
Hop Hornbeam . . . . .	50	Morus . . . . .	57	Raspberries . . . . .	35, 36
Hop Tree . . . . .	52	Moss Roses . . . . .	86	R d Bud . . . . .	45
Horse-Chestnut . . . . .	42, 71	Mourning Bride . . . . .	100	Red Cedar . . . . .	59
Hyacinths . . . . .	106	Mountain Ash . . . . .	52, 53	Red-Hot-Poker . . . . .	101
Hyacinthus . . . . .	97	Mountain Laurel . . . . .	63	Retinospora . . . . .	61
Hydrangea . . . . .	70	Mulberries . . . . .	27, 57	Rhamnus . . . . .	72
Hypericum . . . . .	70, 97	Myosotis . . . . .	99	Rhododendron . . . . .	64
				Rhodotypus . . . . .	72
Iberis . . . . .	97	Narcissus . . . . .	108	Rhubarb . . . . .	39
Ilex . . . . .	64	Nectarines . . . . .	20	Rhus . . . . .	73
Indian Bean . . . . .	44	Nettle Tree . . . . .	45	Ribbon Grass . . . . .	99
Iris . . . . .	98	Nootka Sound Cypress . . . . .	59	Ribes . . . . .	72
Ironwood . . . . .	50	Nut Trees . . . . .	28, 29	Robinia . . . . .	73
				Rock Rose . . . . .	96
Japan Cypress . . . . .	61	Oak . . . . .	53	Rose-bay . . . . .	64
Japan Quince . . . . .	67	Oleaster . . . . .	69	Roses, Bengal and Bourbon . . . . .	85
Japan Weeping Rose-flowered		Ornamental Trees . . . . .	40	Roses, Everblooming . . . . .	82, 83
Cherry . . . . .	56	Ostrya . . . . .	50	Roses, Hardy . . . . .	77
Joe Pye Weed . . . . .	95			Roses, Hardy Climbing . . . . .	81, 82
Judas Tree . . . . .	45	Pagoda Tree . . . . .	55	Roses, Hybrid Remontant, or	
Juneberries . . . . .	33	Papaver . . . . .	99	Perpetual . . . . .	77-80
Juniper . . . . .	59	Papaw . . . . .	43	Roses, Hybrid Tea . . . . .	85
Juniperus . . . . .	59	Paulownia . . . . .	50	Roses, Japanese Trailing . . . . .	86
		Pavia . . . . .	71	Roses, Polyantha . . . . .	84
Kalmia . . . . .	63	Peaches . . . . .	16-2, 50	Rudbeckia . . . . .	100
Kerria . . . . .	71, 72	Pearl Bush . . . . .	69	Russian Olive . . . . .	69
Kœlreuteria . . . . .	48	Pears . . . . .	12-15		
Knapweed . . . . .	94	Pentstemon . . . . .	99	Sage . . . . .	100
		Peonies . . . . .	71, 102, 103	Salisburia . . . . .	54
Lamp Flower . . . . .	98	Periploca . . . . .	91	Salix . . . . .	54, 57
Larch . . . . .	48	Persica . . . . .	50	Salvia . . . . .	100
Larix . . . . .	48	Persimmons . . . . .	20	Sambucus . . . . .	73
Larkspur . . . . .	95	Phalaris . . . . .	99	Sassafras . . . . .	54
Lathyrus . . . . .	98	Philadelphus . . . . .	72	Scabiosa . . . . .	100
Leadwort . . . . .	99	Phlox . . . . .	103, 104	Sea Lavender . . . . .	101
Lemon Lily . . . . .	97	Physostegia . . . . .	99	Sea Pink . . . . .	94
Leopard's Bane . . . . .	95	Picea . . . . .	59, 60	Sedum . . . . .	100, 101
Ligustrum . . . . .	71	Pine . . . . .	60	Seeds . . . . .	39
Lilac . . . . .	74-76	Pink . . . . .	95	Shasta Daisy . . . . .	94
Lilies . . . . .	107	Pinus . . . . .	60	Shrubby Cinquefoil . . . . .	72
Lily-of-the-Valley . . . . .	95	Plane Tree . . . . .	50	Silk Vine . . . . .	91
Linden . . . . .	55	Platanus . . . . .	50	Silkweed . . . . .	94
Linum . . . . .	98	Platycodon . . . . .	99	Silver Bell Tree . . . . .	48
Liquidambar . . . . .	48	Plumbago . . . . .	99	Silver Thorn . . . . .	69
Liriodendron . . . . .	49	Plume Poppy . . . . .	94	Smoke Tree . . . . .	73
Locust . . . . .	73	Plums . . . . .	21-24, 51	Snowball . . . . .	48
Loganberry . . . . .	36	Podocarpus . . . . .	61	Snowberry . . . . .	74
Lonicera . . . . .	71, 91	Polemonium . . . . .	99	Snowdrop . . . . .	106
Lychnis . . . . .	98	Poppy . . . . .	99	Sophora . . . . .	55
Lycium . . . . .	91	Poplar . . . . .	50, 51	Sorbus . . . . .	53
		Populus . . . . .	50, 51, 57	Spiræa . . . . .	73, 74, 94, 101
Magnolia . . . . .	49, 50	Potentilla . . . . .	72	Spruce . . . . .	58, 59, 60
Mahonia . . . . .	63				

## INDEX, continued

	PAGE		PAGE		PAGE
Statice . . . . .	101	Taxus . . . . .	61, 62	Varnish Tree . . . . .	48
St. John's-wort . . . . .	70, 97	Tecoma . . . . .	91	Viburnum . . . . .	76
Stonecrop . . . . .	100, 101	Thrift . . . . .	94	Vines and Bush Fruits . . . . .	30-39
Strawberries . . . . .	38, 39	Thuya . . . . .	62, 63	Walnuts . . . . .	29
Strawberry Tree . . . . .	69	Tilia . . . . .	55, 57	Weigela . . . . .	68, 69
Sunflower . . . . .	97	Tritoma . . . . .	101	Willow . . . . .	54, 57
Sweet Bay . . . . .	50	Tree of Heaven . . . . .	43	Windflower . . . . .	93
Sweet Gum . . . . .	48	Tree Roses . . . . .	86	Wistaria . . . . .	91
Sweet Pepper Bush . . . . .	66	Trumpet Creeper . . . . .	91	Witch Hazel . . . . .	70
Sweet Shrub . . . . .	66	Tsuga . . . . .	63	Xanthoceras . . . . .	55
Sycamore . . . . .	50	Tuberoses . . . . .	105	Yarrow . . . . .	93
Symphoricarpos . . . . .	74	Tulips . . . . .	108	Yellow Cedar . . . . .	59
Syringa . . . . .	74-76	Tulip Tree . . . . .	49	Yellow-wood . . . . .	45
Tamarisk . . . . .	76	Ulmus . . . . .	55, 57	Yew . . . . .	61, 62
Tamarix . . . . .	76	Umbrella Tree . . . . .	50	Yucca . . . . .	101
Taxodium . . . . .	55				

Foliage of *Salix Babylonica Annularis* (see page 51)

# FORMULAS

**BORDEAUX MIXTURE.** Copper sulphate, 6 pounds; quicklime, 4 pounds; water, 40 to 50 gallons. Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. The liquid is then ready for immediate use but will keep indefinitely. If the mixture is to be used on peach foliage it is advisable to add an extra pound of lime to the above formula. When applied to such plants as carnations or cabbages it will adhere better if about a pound of hard soap be dissolved in hot water and added to the mixture. Use for rots, molds, mildews and all fungous diseases.

**COPPER SULPHATE SOLUTION.** Copper sulphate, 1 pound; water, 15 gallons. Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water. Use for fungous diseases.

**KEROSENE EMULSION.** Hard soap,  $\frac{1}{2}$  pound; boiling water, 1 gallon; kerosene, 2 gallons. Dissolve the soap in the water, add the kerosene, and churn with a pump for 5 to 10 minutes. Dilute 10 to 25 times before applying. Use strong emulsion for all scale insects, for insects which suck, as plant-lice, mealy bugs, red spider, thrips, bark-lice or scale. Cabbage worms, currant worms and all insects which have soft bodies, can also be destroyed with this emulsion.

**PARIS GREEN.** Paris green, 1 pound; water, 200 gallons. If this mixture is to be used upon peach trees, 1 pound of quicklime should be added. Repeated applications will injure most foliage, unless lime is added. Paris green and Bordeaux mixture can be applied together with perfect safety. Use at the rate of 4 ounces of the arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. Use for insects which chew.

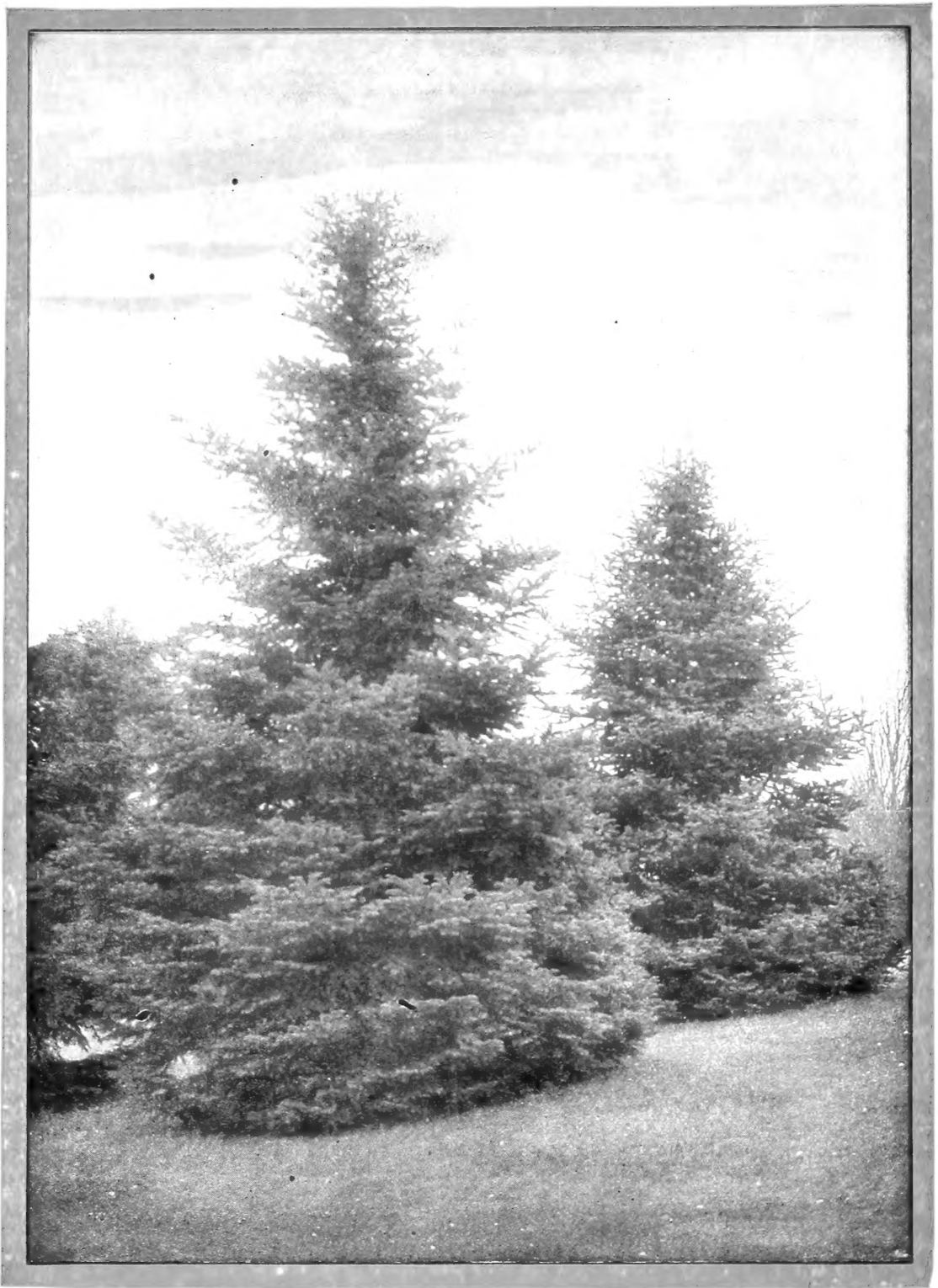
Any of the Agricultural Experiment Stations will furnish bulletins so arranged that the grower may see at a glance what to apply, when and how to make the applications.

**HELLEBORE.** Fresh white hellebore, 1 ounce; water, 3 gallons. Apply when thoroughly mixed. This poison is not so energetic as the arsenites, and may be used a short time before the sprayed portions mature. Use for insects which chew. Can also be used dry by dusting on plants.

**LONDON PURPLE.** This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with Bordeaux mixture. The composition of London purple is exceedingly variable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. Use for insects which chew.

**LIME, SULPHUR AND SALT.** Stone lime, 15 to 30 pounds; flowers of sulphur, 15 pounds; salt, 15 pounds; water, 50 gallons. Slake the lime in a small quantity of hot water, gradually adding and thoroughly stirring in the sulphur. Dilute the mixture with twelve gallons of water and boil in an iron kettle or cook by steam in a covered tank or barrel for one and one-half hours. Then add salt, continuing the boiling for one-half hour more. Fill vessel up with water to the required fifty gallons. Strain wash through a fine-mesh strainer and apply hot. In using an iron kettle, keep the mixture vigorously boiling and thoroughly stirred to prevent caking and burning of materials. Wash cooked by steam is more easily prepared and better made. Apply wash just as the buds begin to swell in the spring. Cover all parts of the tree with a heavy coat of the wash. The wash seems best adapted to orchardists who have not yet learned to use petroleum with safety or are afraid that their trees are beginning to show injury from the oil or will not stand many more applications of it. *It is especially recommended for the treatment of peach trees.* It is believed that the substitution of one and one-fourth pounds of blue vitriol dissolved in hot water for the salt results in a quicker-acting wash. This formula is known as the Oregon Wash. Use for scale and fungous diseases.





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